CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY

Camden, South Carolina

Prepared for
SCDOT

Prepared by
Sprague & Sprague
Consulting Engineers
in association with
Hussey, Gay, Bell& DeYoung

April 23, 2012

Signature Page

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
Camden, South Carolina
April 23, 2012

Table of Contents

SOUTH CAROLINA
SPRAGUE & SPRAGUE CONSULTING ENGINEERS
No. C00288
CERTIFICATE OF AUTHORIZATION

Sprague & Sprague Consulting Engineers
Post Office Box 9192
Greenville, South Carolina
864/242-3106

SOUTH CAROLINA
REGISTERED PROFESSIONAL ENGINEER
NO. 09769
GARRISON SPRAGUE

4/23/12

Table of Contents

Subject **Page**

List of Figures

List of Tables

Table **Page**

List of Tables, continued

List of Tables, continued

List of Appendices

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
Camden, South Carolina
April 23, 2012

Introduction

Camden, South Carolina, is located approximately three miles north of I-20 in Kershaw County. DeKalb Street (US 1) (east-west) and Broad Street (US 521) (north-south) run through the center of downtown Camden, and large trucks using these routes desire to travel through Camden. US 601 runs concurrently with US 521 to the north and with US 1 to the west.

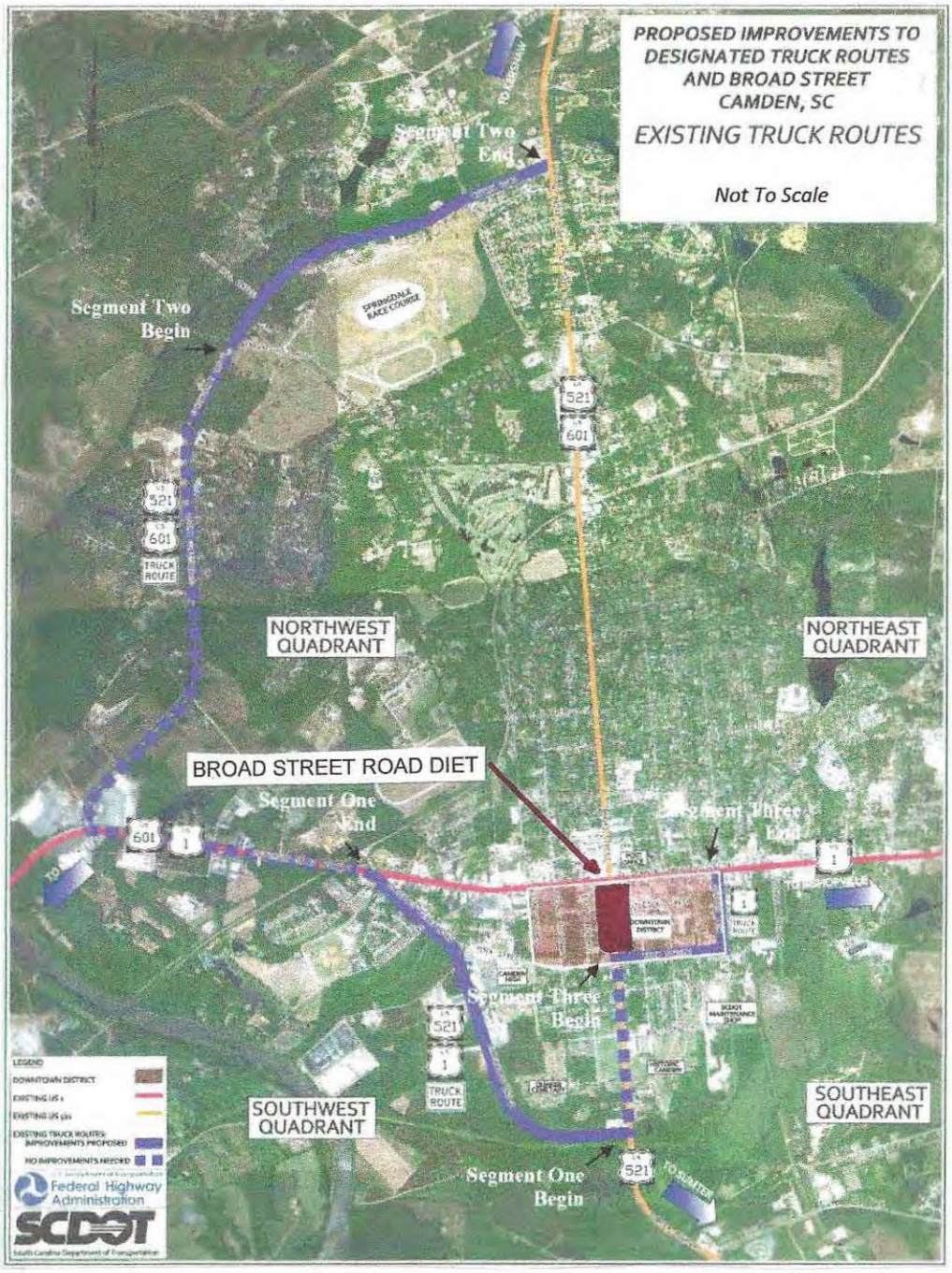
Over the years, the South Carolina Department of Transportation (SCDOT) has designated three truck routes around the center of Camden. These route locations are shown in Figure 1:

- Segment 1 – From US 1 west of downtown – Chestnut Ferry Road and Ehrenclou Road – This segment is mostly two lanes and includes a substandard bridge just east of Old River Road. The unsignalized intersection of Ehrenclou/Chestnut Ferry requires northbound vehicles, including trucks on the truck route, to stop. The route passes Camden High School.
- Segment 2 – From US 521 north of downtown – Boykin Road and Springdale Road – The portion of this segment which follows Springdale Road is already a standard five-lane road and is not included in this study. At Knights Hill Road, Boykin narrows to two lanes and intersects US 521 at a stop-controlled intersection.
- Segment 3 – From US 1 east of downtown – Mill Street and York Street – Both of these streets are two-lane streets, and the intersection of Mill/York is unsignalized with stop signs on Mill.

Broad Street/US 521 is located in downtown Camden. It functions as the main north/south thoroughfare of Camden and runs through the heart of downtown. For the section of Broad between York Street and DeKalb Street in downtown, the City of Camden has received a Transportation Investment Generating Economic Recovery (TIGER) grant from the Federal Highway Administration (FHWA) to plan a Broad Street reconfiguration that will encourage pedestrian activity and economic development. The project location is shown in Figure 1. To achieve these goals, the City and the SCDOT are working together to provide roadway design in the downtown that has the pedestrian as the focus. In addition, the SCDOT is planning upgrades to the truck routes around downtown so that large vehicles have safe and efficient routes through Camden without going through downtown. Through this process, moving the Segment 3 truck route from Mill to Rippondon was considered.

Broad Street is currently four lanes wide with no turn lanes at the intersections and with scattered on-street parking. The current concept for the reconfiguration includes one through lane in each direction with turn lanes at the intersections and on-street parking. More emphasis on crosswalks and other pedestrian amenities will also be part of the reconfiguration.

The future year for this study is 2035, and SCDOT has recommended that the truck routes be designed as minor urban arterials.



PROJECT LOCATIONS	Figure 1 4/25/12
CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY CAMDEN, SOUTH CAROLINA	Sprague & Sprague Consulting Engineers

Purpose of Study

The first purpose of this study was to determine the lanes and traffic control needed along the three truck route segments to accommodate existing and future traffic, specifically those movements involved in the truck routes. The study intersections for the truck routes study are:

- Segment 1 – US 1/Chestnut Ferry, Chestnut Ferry/Old River, Chestnut Ferry/York/Ehrenclou, US 521/Ehrenclou
- Segment 2 – US 521/Boykin, Boykin/Liberty Hill, Boykin/Knights Hill
- Segment 3 – US 1/Mill, Mill/York, US 521/York

Through this process, moving the Segment 3 truck route from Mill to Rippondon was considered. The study intersections for that consideration are:

- York/Rippondon
- US 1/Rippondon

Second, the study was conducted to determine if current and future traffic volumes could be served by the proposed three-lane section on Broad at least as well as the existing four-lane section. In addition, more detailed analyses for turn lane lengths were conducted to aid in developing concepts to be considered for the reconfiguration and in designing the chosen alternative. The Broad Street study intersections are the three signalized intersections in the 0.36 mile segment of Broad Street being considered for reconfiguration:

- Broad Street/York Street
- Broad Street/Rutledge Street
- Broad Street/DeKalb Street (US 1)

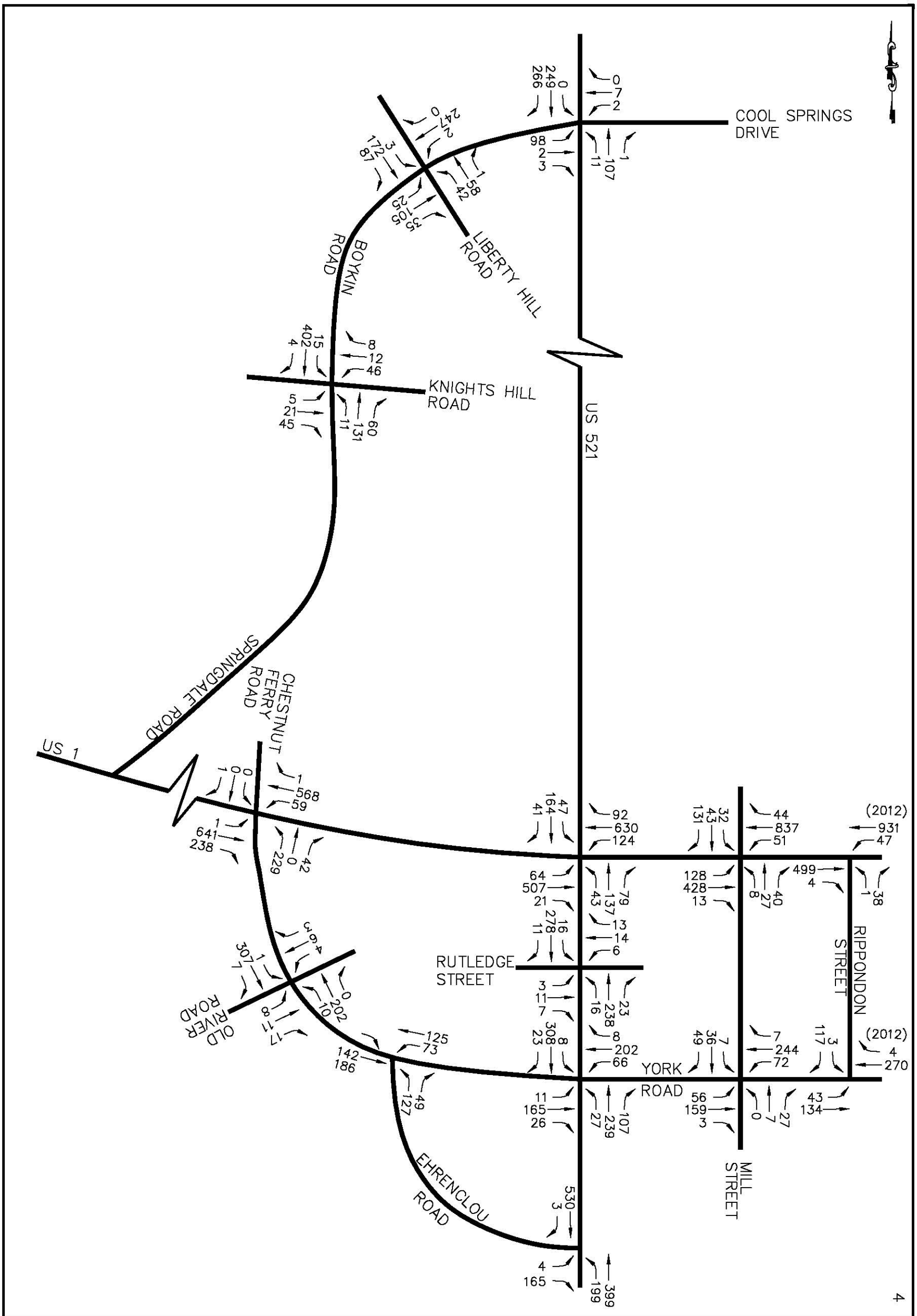
Third, the study examined the detour route which will be used when the Chestnut Ferry bridge is being replaced to determine if any changes in traffic control will be needed to accommodate detour traffic. The anticipated detour route is Campbell Street, and the affected intersections are:

- US 1/Chestnut Ferry
- Chestnut Ferry/Old River
- Chestnut Ferry/York/Ehrenclou
- US 521/Ehrenclou
- US 1/Campbell
- Campbell/York
- US 1/US 521
- US 521/York

This report only examines traffic operations. Intersection geometrics influencing truck operations, such as corner radii, and the social and environmental impacts of any of the changes are being examined by others.

Existing Conditions

Turning movement counts were conducted at the study and detour intersections in November and the first day of December in 2010 between 7:00- 9:00 a.m. and 4:00-6:00 p.m. In addition, counts have been conducted in Camden for a signal timing study which is currently underway. Where multiple counts were available for one intersection, the higher counts were used. Finally, turning movement counts at the Rippondon intersections were conducted in April, 2012. The traffic counts for the study intersections are included in Appendix A, and the peak hour volumes are summarized in Figure 2 for the morning peak hour and in Figure 3 for the afternoon peak hour.



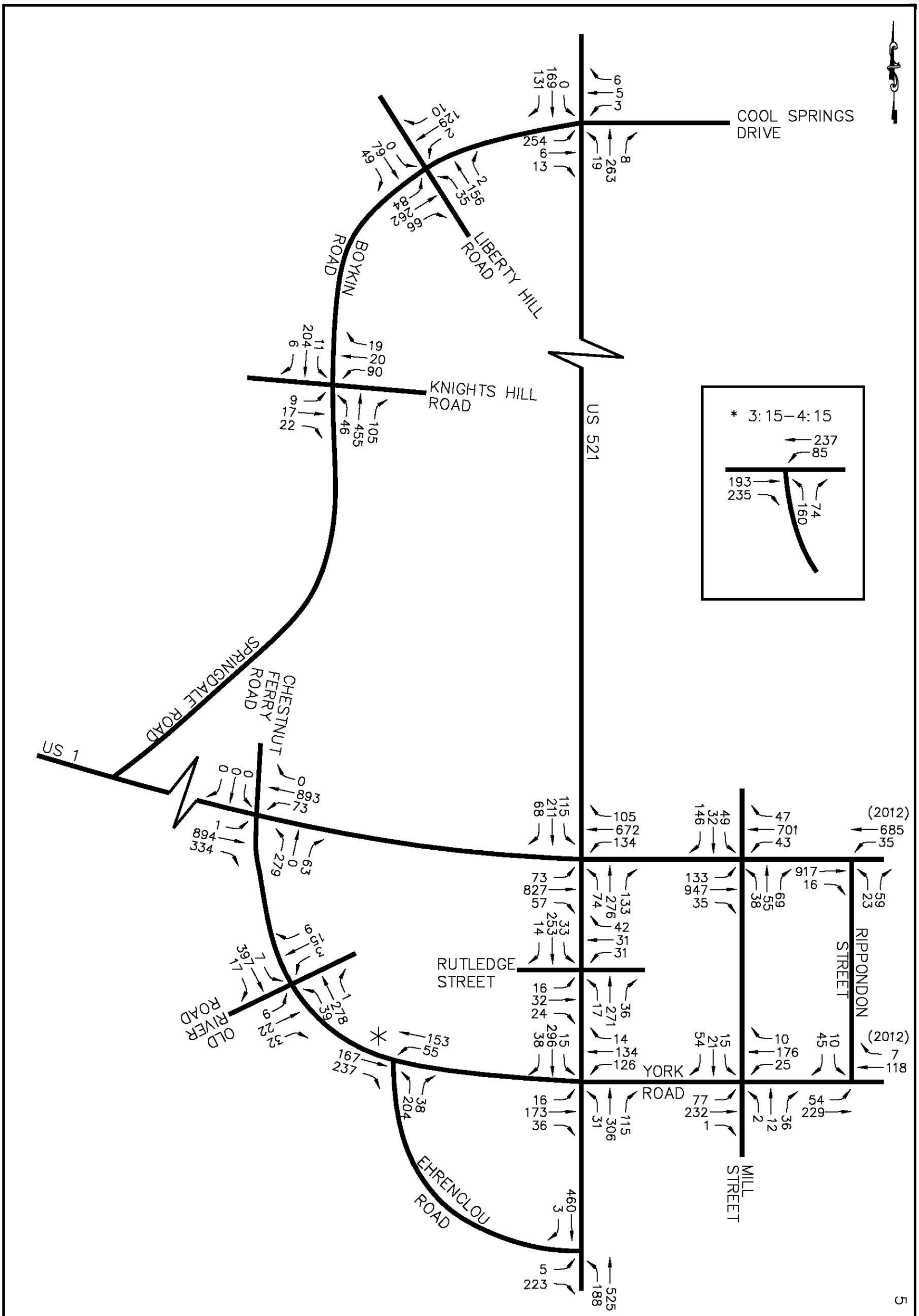
2010 EXISTING VOLUMES
MORNING PEAK HOUR

Figure 2

4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers



2010 EXISTING VOLUMES AFTERNOON PEAK HOUR

Figure 3

4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers

A twenty-four hour count was conducted on Chestnut Ferry Road east of Old River Road near the bridge that will be replaced. The 85th percentile speed was about 40 miles per hour, and the percentage of heavy trucks was two percent. The count also revealed the distribution of medium and heavy trucks. (The twenty-four hour volume was 7,700, but in this report all of the traffic growth rates were based on SCDOT AADT. Therefore, where an SCDOT AADT was available it was used as the 2010 volume, and that volume on Chestnut Ferry was 6,700.) Twenty-four hour counts were also conducted on York east of Rippondon and on Rippondon south of US 1. At those locations, York carries 5100 vehicles per day with three percent heavy trucks and Rippondon carries 1200 vehicles per day with four percent heavy trucks.

For the remaining roadway segments in the project, Average Annual Daily Traffic (AADT) volumes were obtain from SCDOT, and daily truck percentages were extrapolated from the truck percentages during peak hours and the distribution of trucks using Chestnut Ferry. A table of existing daily traffic, twenty-four hour trucks, medium truck percentages, and heavy truck percentages is shown in Appendix B. The daily truck volumes are illustrated in Figure 4. Existing daily truck volumes were rerouted to reflect the goals of this project, and the rerouted existing volumes are shown in Figure 5.

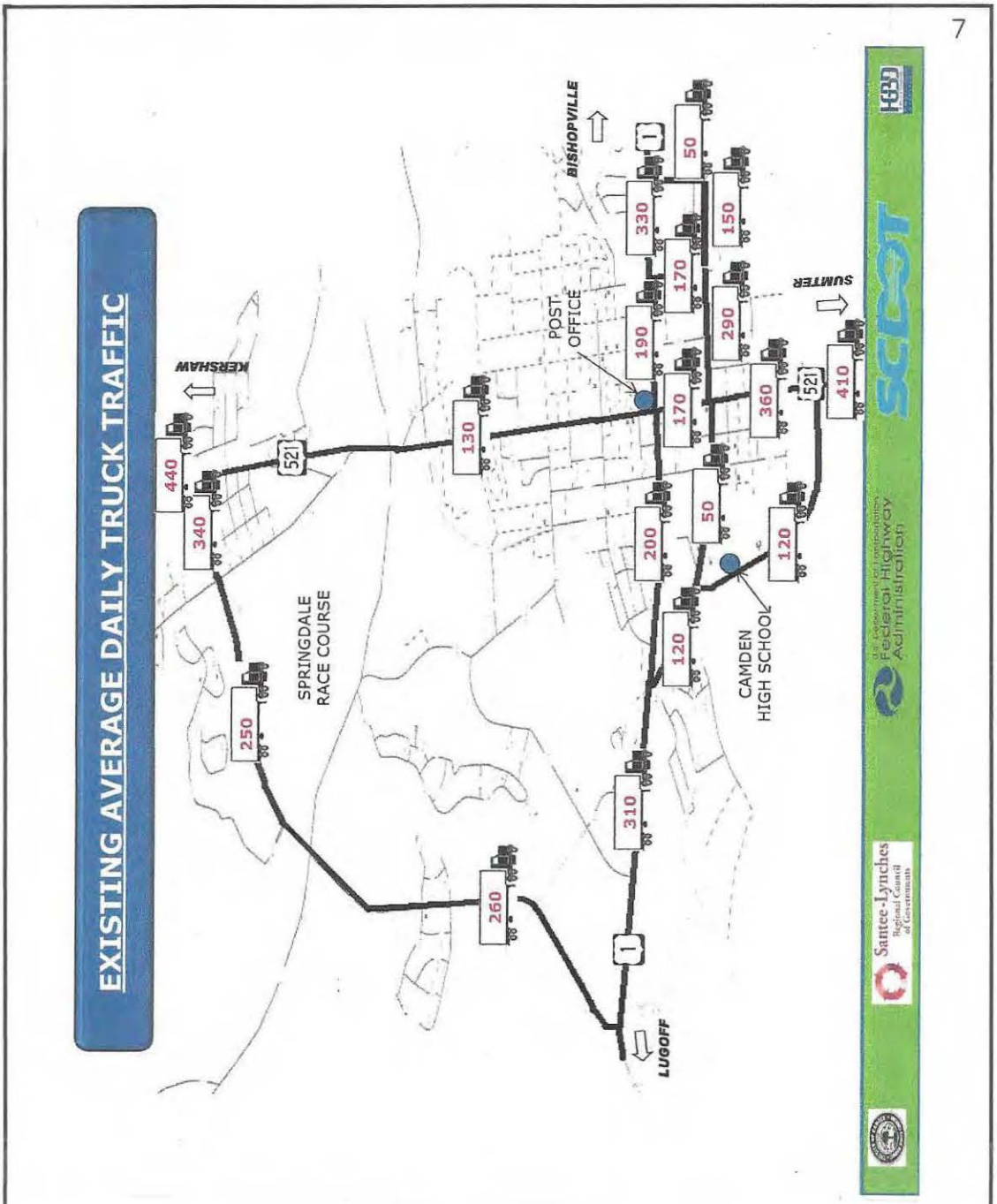
2035 Future Traffic

There are several ways to estimate future traffic volumes. One way is to obtain information from the transportation model maintained by the local transportation planning agency. In Camden, this agency is the Santee-Lynches Council of Governments. Using model data allows the future rate of development in the area to be considered which is particularly important in an area in which there are large parcels of undeveloped property. Another way of projecting future traffic is to examine historical traffic volumes to determine growth trends. Using these methods, equivalent annual growth rates can be determined and the existing turning movement volumes increased by that rate to obtain future turning movement volumes.

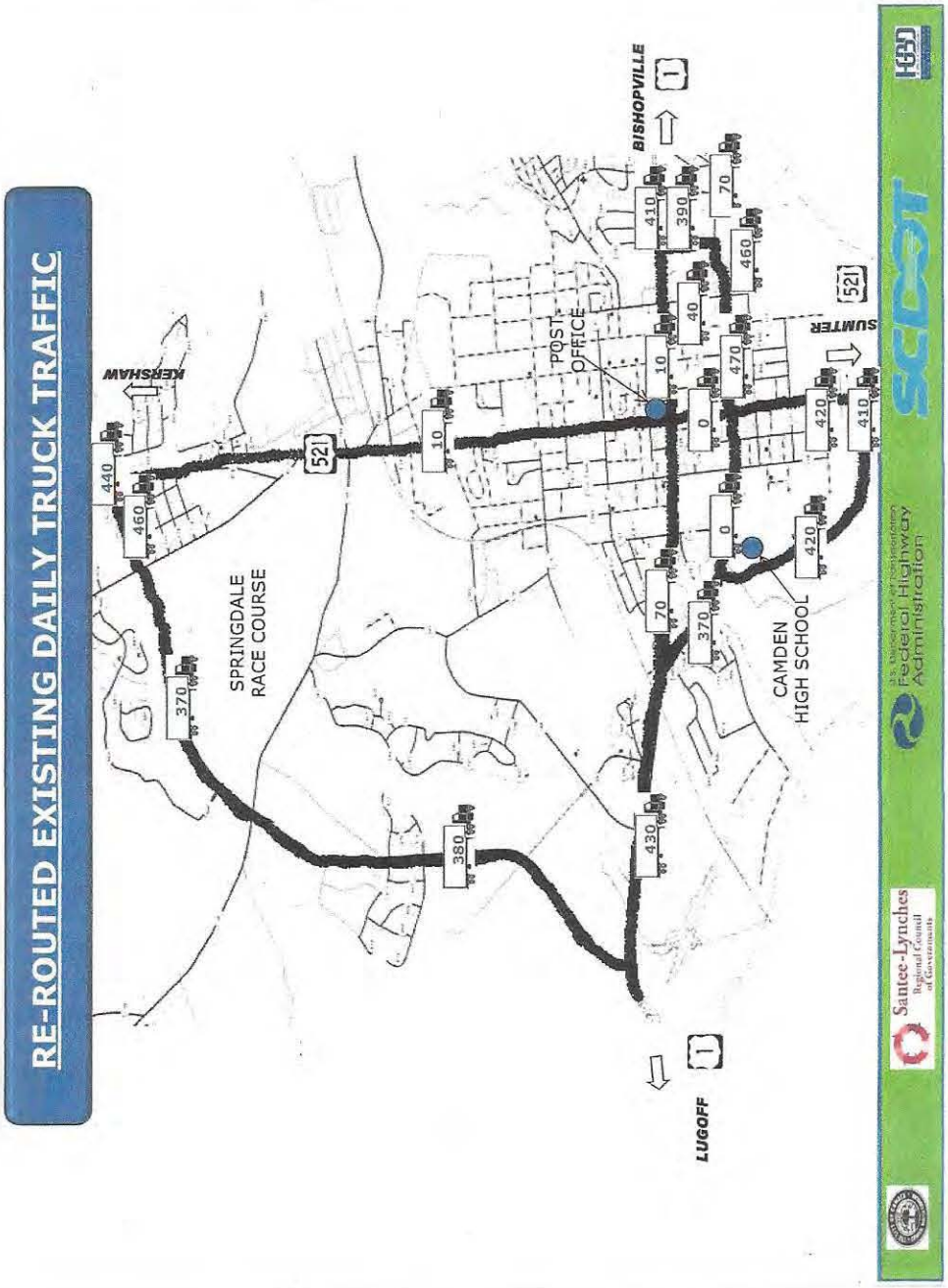
SCDOT provided the model data for Camden, and a comparison of base and projected volumes indicates slow growth at the study intersections ranging from projected drops in traffic volumes to growth rates between 0.1 percent per year to 0.6 percent per year. SCDOT also provided historical traffic volumes, and these are included in Appendix C. These volumes indicate that growth rates ranged from -2.2 percent per year to 2.7 percent per year between 1987 and 2009. As has happened in many South Carolina cites, however, traffic volumes have stabilized in the last five to eight years. The 2001 to 2009 traffic volumes examined in Camden have experienced growth rates which have ranged from -1.5 percent per year to 1.5 percent per year.

It is likely that annual growth of less than one percent is on the low side and growth of three percent is on the high side for the core of Camden. Therefore, an annual growth rate of 1.5 percent was used for this study. Although the future volumes projected using that growth rate will not account for the effect of a large new development on the adjacent roadway section, that growth is reasonable to consider as an average over the next 25 years for the City of Camden.

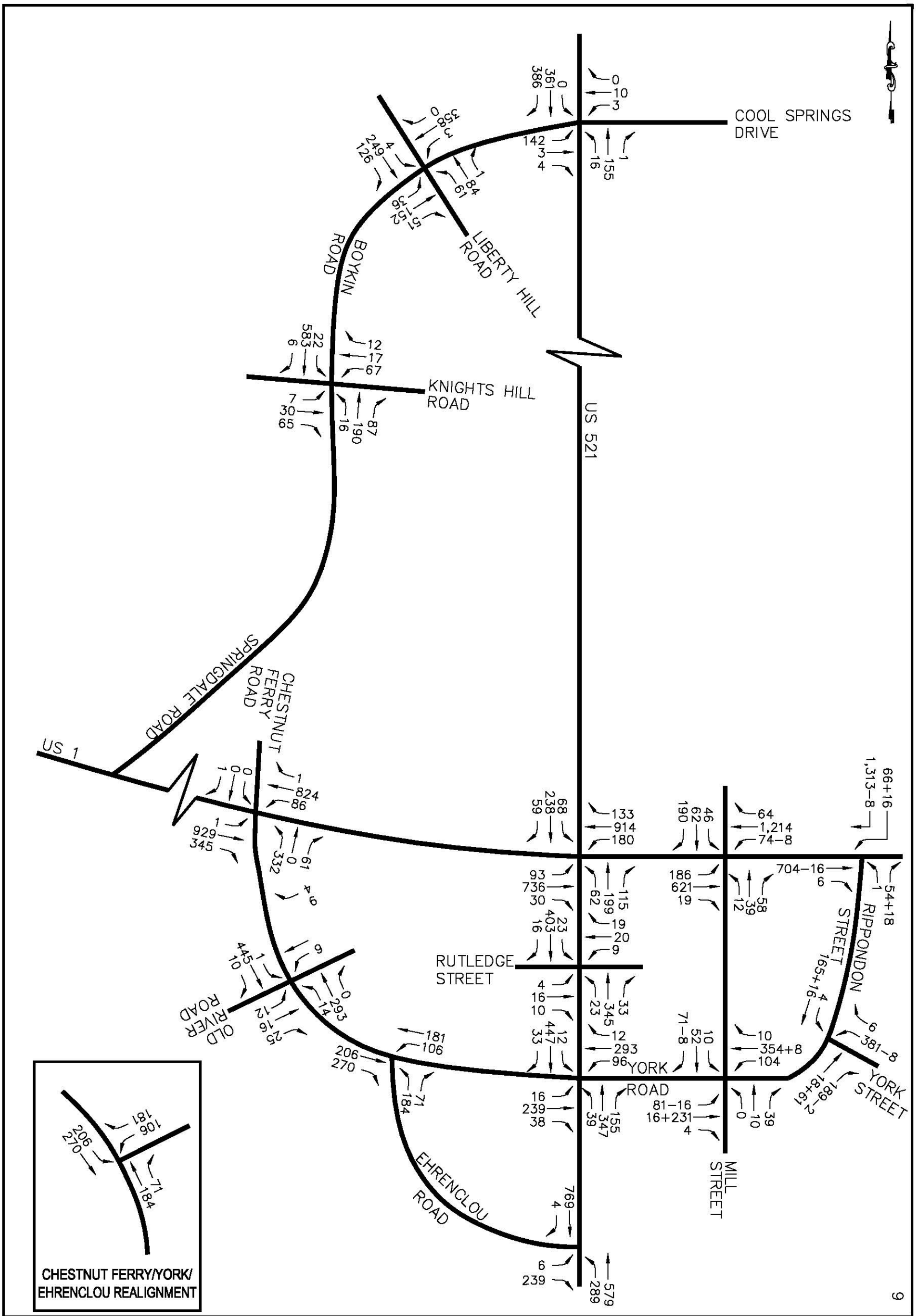
The 2010 existing volumes were increased by 1.5 percent per year for 25 years to obtain the 2035 volumes shown in Figure 6 for the morning peak hour and in Figure 7 for the afternoon peak hour. The 2012 volumes were increased by 1.5 percent per year for 23 years to obtain the 2035 volumes shown in Figures 4 and 5. Because the hourly truck numbers are low numbers, reassigning hourly truck in the 2035 volumes would not be productive. Only where the existing truck route will be shifted from Mill to Rippondon were hourly changes in truck volumes estimated as shown in Figures 6 and 7.



EXISTING AVERAGE DAILY TRUCK TRAFFIC	Figure 4 4/25/12
CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY CAMDEN, SOUTH CAROLINA	Sprague & Sprague Consulting Engineers



REROUTED AVERAGE DAILY TRUCK TRAFFIC	Figure 5 4/25/12
CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY CAMDEN, SOUTH CAROLINA	Sprague & Sprague Consulting Engineers



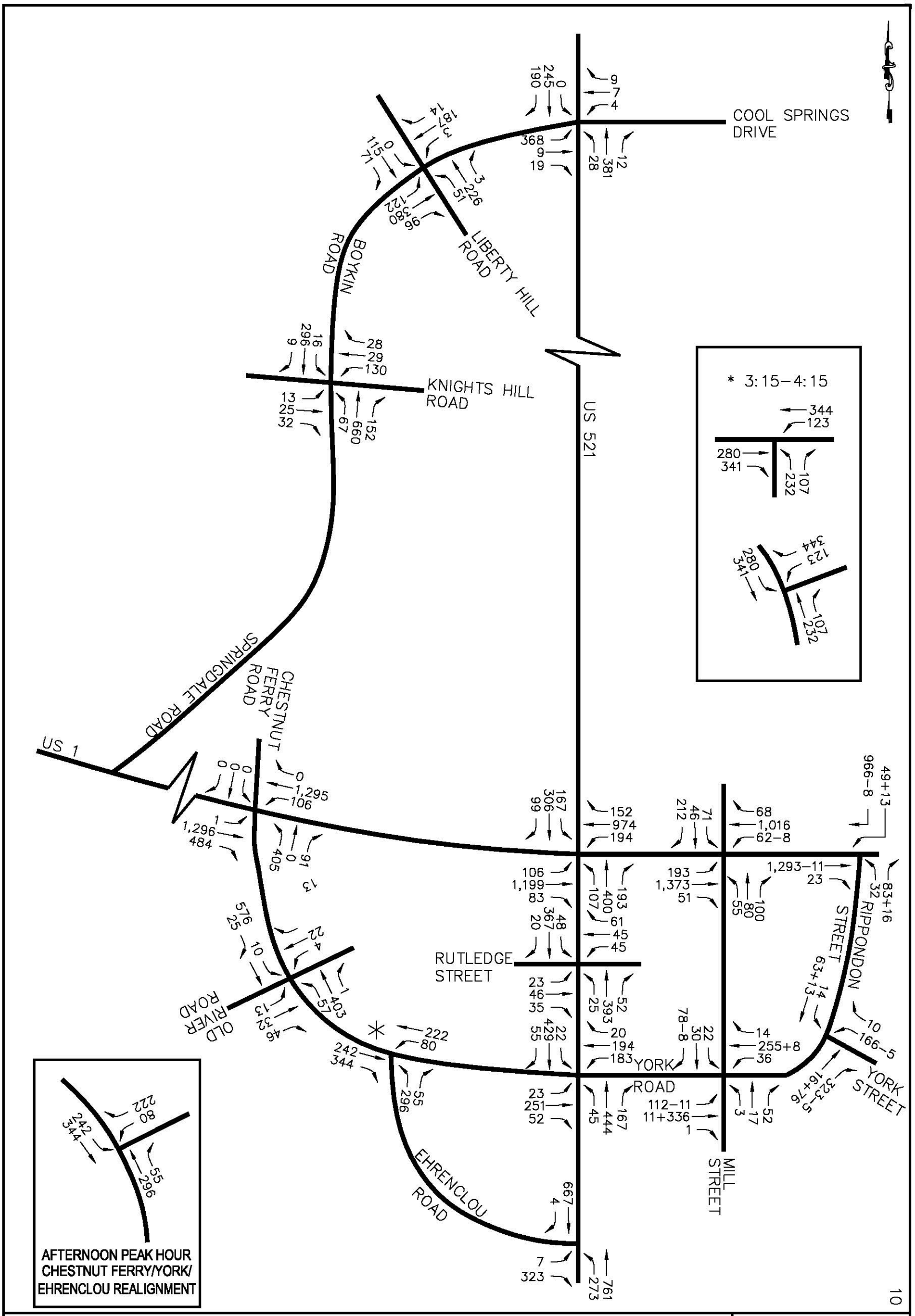
2035 FUTURE VOLUMES
MORNING PEAK HOUR

Figure 6

4/25/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers



2035 FUTURE VOLUMES
AFTERNOON PEAK HOUR

Figure 7

4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers

Daily volumes and truck percentages were projected using growth of 1.5 percent per year and shifting the daily truck volumes to reflect estimated rerouting. The daily traffic, twenty-four hour trucks, medium truck percentages, and heavy truck percentages are shown in the table in Appendix B for 2015, the projected opening year, and for 2035, the design year along with the values for 2010 as discussed in the previous section of this report.

New Bridge on Chestnut Ferry

A new bridge will be required on Chestnut Ferry at Old River. According to Hussey, Gay, Bell and DeYoung, the bridge will be 63 feet wide from the back of sidewalk to back of sidewalk. Construction will take nine to twelve months, and the traffic considerations for the detour which will be required are discussed later in this report.

Capacity Analyses

To this point, this report has regarded the *quantity* of traffic flow, but the purpose of the report is to examine the *quality* of traffic flow. The methodology used in this study for assessing the quality of traffic flow is the methodology described in the 2000 Highway Capacity Manual (HCM), Transportation Research Board. In general, the HCM expresses quality of flow in terms of Level of Service (LOS). The types of transportation facilities which will be examined in this study are signalized and unsignalized intersections and mid-block two-lane "highway" segments.

The criteria for the signalized intersection LOS are shown in Table 1, and the criteria for the unsignalized intersection are shown in Table 2. The variable used is control delay. This is the delay attributed to traffic control measures and includes deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Usually, at a signalized intersection LOS D is considered the lowest acceptable overall LOS. It is not unusual, however, for a side street at an unsignalized intersection to experience LOS E or F during the peak hour. It is suggested, however, that the results of the unsignalized intersection analyses be used as guidance rather than as absolute measures of delay.

Table 1
SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS) CRITERIA
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Level of Service	Control Delay Range (seconds/vehicle)
A	<10
B	>10 and <20
C	>20 and <35
D	>35 and <55
E	>55 and <80
F	>80

Table 2
UNSIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS) CRITERIA
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Level of Service	Control Delay Range (seconds/vehicle)
A	< 10
B	>10 and <15
C	>15 and <25
D	>25 and <35
E	>35 and <50
F	>50

The intersection capacity analyses provide a method of determining the number and arrangement of approach lanes and the traffic control needed to obtain a given LOS or better at the intersections. Between the intersections, the quality of operation depends on factors such as traffic volumes, the number of lanes, and the access requirements of the road. While the HCM provides a methodology for assessing the operation of urban streets, the contexts along the truck routes are a mixture of urban, suburban, and rural environments. Therefore, there is not a specific mid-block analysis which applies to a two-lane street. Because the point of the mid-block analysis is to check the sufficiency of a two through lanes in each direction, the two-lane highway analysis for a Class II highway was used as a guide of segment operations. The need for turn lanes or a three-lane section will be examined in the next section of this report. The basis for LOS for two-lane highways is percent time following, and the criteria are shown in Table 3.

Table 3
TWO-LANE HIGHWAY LEVEL OF SERVICE (LOS) CRITERIA
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Level of Service	Control Delay Range (seconds/vehicle)
A	< 40
B	>40 and <55
C	>55 and <70
D	>70 and <85
E	>85
F	Where volume exceeds capacity

Peak hour factors and percentages of heavy vehicles were taken from the counts in Appendix A. Lane widths were measured in the field, and grades were estimated during field visits. Green signal times were measured in the field, and clearance times were assumed to be four seconds for yellow and two seconds for all-red. Capacity analysis printouts are included in Appendix C. Please see the section of this report regarding turn lane lengths for an explanation of the two different softwares used for capacity analyses in this study.

Mid-block Operations

The two-lane highway analyses were conducted for existing volumes and geometry for reference and for 2035 volumes with an improved two-lane to check future adequacy of one through lane in each direction. As shown in Table 4, all segments can operate acceptably mid-block in 2035 with one through lane in each direction. The need for turn lanes or a three-lane section will be addressed in the next section of this report. The capacity of Broad Street is controlled by the Broad/DeKalb intersection.

Table 4
CAPACITY ANALYSIS RESULTS – TWO-LANE HIGHWAY
TRUCK ROUTE SEGMENTS
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Segment	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes Existing Geometry	2035 Volumes Improved 2-lane	2010 Volumes Existing Geometry	2035 Volumes Improved 2-lane
	LOS	LOS	LOS	LOS
Boykin				
Knights Hill-Liberty Hill	C	D	C	D
Liberty Hill-Broad	C	C	C	C
Chestnut Ferry				
DeKalb-Ehrenclou	C	D	C	D
Ehrenclou				
Chestnut Ferry-Broad	C	C	C	C
York				
Broad-Mill	C	D	C	D
Mill-Rippondon	D	D	C	C
Rippondon				
York-DeKalb	B	C	A	B

Notes:
- LOS = Level of Service
- Improved two-lane = travel lanes of 12 feet and shoulders of minimum six feet

Segment 1 - Intersections

US 1/Chestnut Ferry Road – As shown in Table 4, this intersection currently operates acceptably and will continue to do so in 2035 without any changes. With the exception of the westbound left turn which will operate at LOS F in 2035 during the afternoon peak hour, all movements will operate acceptably. This left currently serves 73 lefts, and the cross product with the westbound through traffic does not exceed 50,000 per lane. That

is reflected in existing operation of this movement at LOS B. By 2035, both the westbound left and eastbound through movements are expected to grow, yielding more delay for the westbound left which is a permitted only turn. Using the projected volumes, the cross product for these movements will exceed 50,000 per lane by 2035. However, the projected left turn volume is two vehicles per cycle which is usually considered acceptable for clearing on yellow/all red. Because this intersection is in a signal system, the cycle length was kept constant in the analyses. The only option, therefore, for giving this left more time would be to switch more time to the east-west through green or assuming a left turn protected/permissive phase for westbound traffic. Shifting more time to the east-west would take green time away from the northbound left truck movement or from the eastbound through. Delaying the northbound truck movement would be contrary to the purpose of this project, and taking time away from the eastbound through would worsen overall operation. Given all of these considerations, no treatment of the westbound left is recommended as part of this project. If that volume grows more than expected or if an unexpected accident pattern occurs, the trade off with the additional northbound or eastbound delay can easily be weighed in the future because phasing and timing do not require construction.

Table 5
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERECTION
US 1/CHESTNUT FERRY ROAD
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	2035 Volumes	2010 Volumes	2035 Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Left	A/7	A/7	A/9	A/9
Through	A/9	A/10	B/12	B/16
*Right	A/2	A/2	A/2	A/2
WB - Left	A/9	C/21	B/12	F/154
Through/right	A/9	A/10	B/14	C/24
NB - *Left	C/25	D/50	C/24	C/29
Left/through/right	C/31	D/44	C/25	C/34
SB - Left/through/right	D/40	D/40	D/44	D/44
Overall	B/11	B/16	B/13	C/24

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, WB = westbound, NB = northbound, SB = southbound
- US 1 is east-west. Chestnut Ferry is north-south.
- * = Truck route movements

Chestnut Ferry Road/Old River Road – As shown in Table 6, the side street movements and lefts from Chestnut Ferry operate acceptably now and will continue to do so in 2035 during the morning peak hour. In the afternoon peak hour in 2035, the side street delay will increase but will still be reasonable. The delay for the northbound right turn from Old River to Chestnut Ferry could be reduced by adding a northbound right turn lane.

Table 6
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
CHESTNUT FERRY ROAD/OLD RIVER ROAD
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour		
	2010 Volumes	2035 Volumes	2010 Volumes	2035 Volumes	2035 + NB Right Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB - Left	A/8	A/8	A/8	A/8	A/8
WB - Left	A/8	A/8	A/8	A/9	A/9
NB - Left/thru/(right)	B/13	C/19	C/22	F/98	F/98
Right					B/14
SB - Left/thru/right	B/14	C/20	C/19	E/45	E/45

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- Chestnut Ferry is east-west. Old River is north-south.

Chestnut Ferry Road/Ehrenclou Road/York Street – Along Segment 1, this is the only unsignalized intersection at which a truck must make a left turn from a side street. As shown in Table 7, this movement already experiences some delay in the peak hours, and that delay will increase in the future to levels that will not be encouraging to truck traffic. Therefore, some other arrangement of traffic needs to be considered.

If Chestnut Ferry/Ehrenclou were made the through movement and York brought in at 90 degrees, the truck route would be the through movement. It is assumed that the York approach would have a left turn lane and a right turn lane. As shown in Table 8, even with that two-lane approach, the side street delay would be noticeable. With the realignment, however, the delay would apply to fewer vehicles and would not apply to the truck route.

As discussed later in this report, there is potential that this intersection will meet signal warrants by 2035 or sooner. As shown in Table 9, under signal control the intersection can operate acceptably in the future with the current alignment (assuming the addition of a westbound left turn lane and a northbound right turn lane) or with the realignment. Overall, operation will be about the same with either alignment, but the truck route movements will have less delay with the realignment. Results are shown for each approach rather than by movement so that the results for the two alignments can be compared.

Because school dismissal hour volumes are slightly higher than afternoon peak hour volumes, signalized operation with and without realignment was also checked for school dismissal hour volumes. As also shown in Table 9, the intersection can operate acceptably during school dismissal hour under either the existing alignment or realignment. With realignment, the York approach will operate at LOS E during school dismissal, but a change in timing for that hour will allow York to operate at LOS C while keeping the bus route operation at LOS B.

Another consideration at this intersection is pedestrians because Camden High School is located in the southeast quadrant. Pedestrians cross Ehrenclou to get to the school. Currently they cross the stop-controlled leg, but if the intersection were realigned and not signalized, the students would cross the through street, which would not be required to stop. If, however, the intersection were realigned and signalized, students would cross during the red phase for the through movements.

Table 7
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
CHESTNUT FERRY ROAD/EHRENCLOU ROAD/YORK STREET
EXISTING ALIGNMENT
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour			Afternoon Peak Hour		
	2010 Volumes	2035 Volumes	2035 + NB Right Lane	2010 Volumes	2035 Volumes	2035 + NB Right Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
WB York - Left	A/9	B/10	B/10	A/9	A/10	A/10
NB Eh*Left/(rt)	E/38	F/410	F/329	D/30	F/289	F/244
Right			B/13			B/12

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- WB = westbound, NB = northbound
- Chestnut Ferry/York is east-west. Ehrenclou is north-south.
- Rt - Right

Table 8
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
CHESTNUT FERRY ROAD/EHRENCLOU ROAD/YORK STREET
PROPOSED REALIGNMENT – ASSUMES TWO LANES WESTBOUND
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour	Afternoon Peak Hour
	LOS/Delay	LOS/Delay
SB CF/Eh - Left	A/9	A/9
WB York – Left	F/230	F/126
Right	B/14	B/14

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- WB = westbound, SB = southbound
- Chestnut Ferry/ Ehrenclou is north-south. York is east-west

Table 9
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERECTION
CHESTNUT FERRY ROAD/YORK STREET/EHRENCLOU ROAD
2035 VOLUMES
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Approach	Morning Peak Hour		Afternoon Peak Hour		School Dismissal		
	Existing	Realigned	Existing	Realigned	Existing	Realigned	
	LOS/Del	LOS/Del	LOS/Del	LOS/Del	LOS/Del	LOS/Del	
	Base Timing	Base Timing	Base Timing	Base Timing	Base Timing	Base Timing	Change Timing
Chestnut Ferry	B/15	B/12	B/18	B/10	B/17	B/11	B/18
Ehrenclou	C/29	A/10	C/32	A/10	B/10	B/10	B/14
York	A/9	C/30	A/9	C/29	C/28	E/68	C/20
Overall	B/17	B/16	B/18	B/15	B/17	C/30	C/21

Notes:

- LOS = Level of Service
- Del = Delay in seconds per vehicle.
- Results are shown for each approach rather than by movement so that the results for the two alignments can be compared.

US 521/Ehrenclou Road – At this unsignalized intersection, the trucks using the truck route are required to take a left from the major street and a right from the side street. As shown in Table 10, both of these movements currently operate acceptably, but delay will increase by 2035. The addition of a two-lane approach eastbound will allow the truck movements to operate acceptably, but it is notable that the northbound left turn in the morning will operate at LOS C. This operation indicates that, if the intersection were signalized, a left turn phase would probably be needed. Usually SCDOT is hesitant to signalize an intersection with a low number of left turns, especially if a side street right turn lane is available. The potential for a future signal is discussed later in this report and indicates that even with the heavy percentage of right turns, there is potential for signalization in the future.

Under signal control, this intersection can operate acceptably with existing geometry in 2035, but, as shown in Table 11, the provision of two eastbound lanes will improve operations of the truck route movements.

Table 10
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
US 521/EHRENCLOU ROAD
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour			Afternoon Peak Hour		
	2010 Volumes	2035 Volumes	2035 + EB Right Lane	2010 Volumes	2035 Volumes	2035 + EB Right Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
NB - *Left	B/10	C/15	C/15	A/10	B/12	B/12
EB – Left/(rt)	C/17	F/154	F/347	C/20	F/249	F/269
*Right			C/15			C/17

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, NB = northbound
- Ehrenclou is east-west. US 521 is north-south.
- Rt = Right

Table 11
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERECTION
US 521/EHRENCLOU ROAD
2035
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	Existing Geometry	Add EB Right Turn Lane	Existing Geometry	Add EB Right Turn Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Left/(right)	D/39	C/28	D/41	C/27
*Right		B/18		B/19
NB - * Left	D/39	C/34	C/23	B/14
Through	A/8	A/7	B/11	A/8
SB - Through/right	C/21	B/20	C/25	B/19
Overall	C/22	B/18	C/22	B/14

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, NB = northbound, SB = southbound
- US 521 is north-south. Ehrenclou is east-west.
- * = Truck route movements

Segment 2 - Intersections

US 521/Boykin Road – This is the only intersection along Segment 2 at which the truck route requires left turns from a stop sign controlled side street. As shown in Table 12, except for the eastbound approach, the intersection operates acceptably now and is expected to do so in the future. The addition of a southbound right turn lane on US 521 can reduce the eastbound delay. As discussed later in this report, the afternoon peak hour volume at this intersection already meets 70 percent of Warrant 3 (the peak hour warrant). It is likely, therefore, that the intersection will meet signal warrants in the future. As shown in Table 13, the intersection can operate acceptably under signal control with existing and 2035 volumes. The addition of a southbound right turn lane can reduce delay at the intersection but is not required to obtain overall acceptable operation. As discussed later in this report, the SCDOT standard practice is to place turn lanes on all approaches to a signalized intersection. At a minimum, left turn lanes should be provided on US 521 at this intersection.

Table 12
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
US 521/BOYKIN ROAD/COOL SPRINGS DRIVE
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour		
	2010 Volumes	2035 Volumes	2010 Volumes	2035 Volumes	2035 + NB Right Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
NB - Left	A/9	A/10	A/8	A/8	A/8
SB - Left	A/8	A/8	A/8	A/8	A/8
EB - *Left/thru/right	C/20	F/63	E/40	F/408	F/279
WB - Left/thru/right	B/15	C/22	B/12	C/16	C/16

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- Boykin/Cool Springs is east-west. US 521 is north-south.
- * = Truck route movement

Table 13
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
US 521/BOYKIN ROAD/COOL SPRINGS DRIVE
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour			Afternoon Peak Hour		
	2010 Volumes	2035 Volumes	2035 + SB Right Lane	2010 Volumes	2035 Volumes	2035 + SB Right Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB- * Left/thru/right	B/18	C/23	B/20	C/34	C/31	C/25
WB – Left/thru/right	B/16	B/18	B/16	B/16	B/12	B/11
NB – Left/thru/right	A/9	A/9	A/9	A/10	C/21	C/24
SB– Left/thru/(right)	B/14	C/28	B/10	B/10	C/22	B/18
Right			B/12			B/18
Overall	B/14	C/24	B/12	B/18	C/24	C/22

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- Boykin/Cool Springs is east-west. US 521 is north-south.
- * = Truck route movement

Boykin Road/Liberty Hill Road – As shown in Table 14, this signalized intersection currently operates with little delay and will continue to do so in 2035. No improvements are recommended.

Table 14
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
BOYKIN ROAD/LIBERTY HILL ROAD
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	2035 Volumes	2010 Volumes	2035 Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Left	A/10	B/10	A/8	A/9
*Through/right	B/11	B/11	B/11	C/22
WB - Left	A/9	A/9	A/8	A/8
*Through/right	B/12	B/15	A/9	A/9
NB - Left	A/9	A/9	A/9	A/9
Through/right	A/8	A/9	A/10	B/10
SB - Left	A/8	A/8	A/8	A/8
Through/right	B/10	B/12	A/9	A/10
Overall	B/10	B/12	A/10	B/14

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, WB = westbound, NB = northbound, SB = southbound
- Boykin is east-west. Liberty Hill is north-south.
- * = Truck route movements

Boykin Road/Knights Hill Road – As shown in Table 15, this signalized intersection currently operates with little delay and will continue to do so in 2035. No improvements are recommended.

Table 15
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
BOYKIN ROAD/KNIGHTS HILL ROAD
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	2035 Volumes	2010 Volumes	2035 Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Left/through*	B/18	B/18	C/25	C/26
Right	B/18	B/19	C/25	C/25
WB - Left	B/18	B/19	C/28	D/41
*Through/right	B/18	B/18	C/25	C/26
NB - Left	A/5	A/5	A/4	A/5
Through	A/5	A/6	A/6	A/7
Right	A/5	A/5	A/4	A/5
SB - Left	A/5	A/5	A/4	A/4
Through/right	A/5	A/6	A/4	A/5
Overall	A/8	A/8	A/10	B/12

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, WB = westbound, NB = northbound, SB = southbound
- Boykin is east-west. Knights Hill is north-south.
- * = Truck route movements

Segment 3 - Intersections

York Street/Broad Street – As shown in Table 16, this intersection currently operates acceptably, and can continue to do so with the streetscape geometry with little overall change in delay. The intersection can also operate acceptably with existing or road diet geometry with projected 2035 volumes with little difference in overall delay.

Although overall operation is and can continue to be acceptable, the results shown in Table 16 indicate delay for the westbound left turn that is higher than for most of the other movements, and this was observed in the field. The existing cross product for this left does not exceed 50,000, and in 2035 will only exceed it during the afternoon peak hour and only by about 5,000. However, this left is the truck route movement, and a westbound left turn phase could be added and overall acceptable operation maintained as shown in Table 17.

Depending on the alignment across the intersection, the northbound outside lane on US 521 could drop as a right turn lane.

Table 16
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
YORK STREET/ BROAD STREET
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	2010		2035	
	Existing Geometry	Road Diet Geometry	Existing Geometry	Road Diet Geometry
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
Morning Peak Hour				
EB - Left	C/26	C/26	C/22	C/22
Through/right	D/36	D/36	C/33	C/33
WB - Left*	D/39	D/39	D/43	D/43
Through/right	D/42	D/42	D/39	D/39
NB – Left		A/7		B/12
(Left)/through/right*	A/7	A/10	B/12	B/19
SB – Left		A/6		B/14
(Left)/through/right	A/9	A/9	B/12	C/22
Overall	C/20	C/21	C/22	C/27
Afternoon Peak Hour				
EB - Left	C/35	C/35	C/23	C/23
Through/right	D/48	D/48	D/35	D/35
WB - Left*	F/129	F/129	F/108	F/108
Through/right	D/43	D/43	C/31	C/31
NB – Left		A/8		B/18
(Left)/through/right*	A/8	B/11	B/19	C/30
SB – Left		A/8		B/19
(Left)/through/right	A/8	B/10	B/17	C/28
Overall	C/31	C/32	C/31	D/37

Notes:

- LOS = Level of Service. Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- York is east-west. Broad is north-south.

Table 17
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
YORK STREET/ BROAD STREET WITH WESTBOUND LEFT TURN PHASE
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	2010		2035	
	Existing Geometry	Road Diet Geometry	Existing Geometry	Road Diet Geometry
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
Morning Peak Hour				
EB - Left	C/28	C/28	C/24	C/24
Through/right	D/43	D/43	D/42	D/42
WB - Left*	B/19	C/21	B/19	C/21
Through/right	C/24	C/25	C/23	C/24
NB – Left		A/9		B/19
(Left)/through/right*	B/13	B/18	B/19	C/31
SB – Left		A/9		C/20
(Left)/through/right	B/14	B/12	B/20	D/36
Overall	C/20	C/22	C/24	C/32
Afternoon Peak Hour				
EB - Left	D/39	D/39	C/33	C/33
Through/right	E/59	E/59	E/56	E/56
WB - Left*	C/29	C/31	C/30	E/76
Through/right	C/25	C/26	C/22	C/28
NB – Left		B/16		B/18
(Left)/through/right*	B/18	C/22	C/27	C/34
SB – Left		B/15		C/21
(Left)/through/right	B/15	B/19	C/23	C/31
Overall	C/26	C/29	C/31	D/40

Notes:
- LOS = Level of Service. Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- York is east-west. Broad is north-south.

York Street/Mill Street – At this intersection, the existing truck route is Mill to York, but the change being considered is York to York. As shown in Table 18, this intersection with stop signs on Mill currently operates acceptably, but delay will increase southbound in 2035 with the truck route on Rippondon. This delay would also occur without the movement of the truck route. Moving the truck route allows trucks to avoid this movement (southbound Mill to westbound York). This intersection is not expected to meet signal warrants in the future.

Table 18
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
YORK STREET/MILL STREET
Camden Truck Route Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	2035 Volumes	2010 Volumes	2035 Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB - * Left	A/8	A/9	A/8	A/8
WB - Left	A/8	A/8	A/8	A/8
NB - Left/thru/right	B/14	C/23	B/14	D/26
SB - * Left/thr/right	C/20	F/75	C/16	E/39

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- York is east-west. Mill is north-south.

DeKalb Street/Mill Street – The existing truck route is DeKalb from the east to Mill. The change being considered moves the truck route east to Rippondon, and the DeKalb/Mill intersection will no longer be on the truck route. As shown in Table 19, this intersection currently operates acceptably overall, but the southbound through/right and northbound left movements experience noticeable delay. This delay was verified during field observations, but it can be addressed with a change in timing. With this timing change and the removal of the truck route in 2035, the intersection will still operate acceptably although the eastbound left turn will experience delay. Removal of the truck route will allow consideration of an eastbound left turn phase in the future without concern for its impact on the truck route.

Table 19
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
US 1/MILL STREET
Camden Truck Route Traffic Study
Camden, South Carolina

Movement	2010		2035
	Existing Operation	Change Timing	Change Timing
	LOS/Delay	LOS/Delay	LOS/Delay
Morning Peak Hour			
EB – Left	A/5	B/11	F/252
Through/right	A/3	A/8	A/8
WB – Left	A/3	A/7	A/8
Through/right	A/4	A/10	B/13
NB – Left	D/50	D/37	D/39
Through/right	D/52	D/39	D/39
SB – Left	D/51	D/38	D/39
Through/(right)	F/289	D/54	F/125
Right			
Overall	D/40	B/16	D/42
Afternoon Peak Hour			
EB – Left	A/5	B/10	F/189
Through/right	A/5	B/10	C/20
WB – Left	A/4	A/8	D/41
Through/right	A/4	A/9	B/16
NB – Left	F/203	D/40	D/37
Through/right	E/70	D/40	C/35
SB – Left	D/55	D/38	C/33
Through/(right)	F/189	D/46	D/45
Right			
Overall	C/30	B/16	C/33

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound, RTL = Right Turn Lane, LT = Left Turn
- DeKalb is east-west. Mill Street is north-south.

York Street/Rippondon – This intersection is currently oriented with York as the through street. As shown in Table 20, the intersection currently operates acceptably.

To encourage use of a relocated truck route on Rippondon, a realignment that would make York/Rippondon the through street is being considered. The base realignment geometry considered is northbound through/right, southbound left, southbound through, and westbound left/right.

In 2035 with the trucks rerouted and the base realignment geometry, delay for the westbound approach during the morning peak hour will be high as shown in Table 21. The addition of a northbound right turn lane will reduce this delay, but the LOS will still be F. The addition of a westbound right turn lane will reduce delay further but will not change the LOS. As discussed later in this report, barring some unforeseen large development it is unlikely that this intersection will meet signal warrants even though the side street delay will be high. Some westbound York non-truck traffic may be diverted due to this high side street delay. The northbound and westbound right turn lanes should be built to minimize the side street delay given that signalization is unlikely.

Table 20
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
YORK STREET/RIPPONDON STREET
EXISTING ALIGNMENT – 2012
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour	Afternoon Peak Hour
	LOS/Delay	LOS/Delay
EB York - Left	A/8	A/8
SB Rip – Left/right	C/18	B/11

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, SB = southbound
- Rippondon is north-south. York is east-west.

Table 21
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
YORK STREET/RIPPONDON STREET – REALIGNMENT - 2035
Camden Truck Route Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour			Afternoon Peak Hour
	Base	Add NB RTL	Add WB RTL	Base
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
SB Rip - Left	A/8	A/9	A/8	A/8
WB Yrk-Left/(right)	F/300	F/180	F/167	C/15
Right			A/10	

Notes:

- LOS = Level of Service; RTL = Right Turn Lane
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- York is east-west. Rippondon is north-south.
- Base = base realignment geometry = northbound through/right, southbound left, southbound through, and westbound left/right.

DeKalb Street/Rippondon Street – As shown in Table 22, the intersection currently operates acceptably and will be able to continue to do so in 2035 in the morning peak hour. In the afternoon peak hour in 2035, however, the Rippondon approach will experience high delay. If a northbound right turn lane is added as part of the truck route, the truck movements will be able to operate acceptably, but the northbound left will continue to experience high delay.

As discussed later in this report, this intersection may meet Warrant 3 at 70 percent in 2035. Although SCDOT is usually reluctant to signalize an intersection that is not near a school based on Warrant 3, the location of this intersection on the truck route may add to the justification for its signalization. Therefore, the intersection was also examined as a signalized intersection in 2035 as shown in Table 23. The intersection can operate acceptably as a signal with existing geometry, but delay for the northbound right turn can be reduced by adding a northbound right turn lane.

The distance between this intersection and the closest signalized intersection which is at Fairlawn is only about 500 feet. Usually, a distance of about 1000 feet is a desirable separation between intersections to reduce the potential for queues at one intersection extending to the next intersection. In this case, however, the queue at Fairlawn was observed and did not exceed four vehicles per lane or about 100 feet. The projected queue for the westbound through at Rippondon is only 300 feet because the westbound through will only have red time when the northbound left has a green. The projected peak hour volume for the northbound left is only 32. Therefore, the queues between Rippondon and Fairlawn should not extend through the adjacent intersection.

Table 22
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
DEKALB STREET/RIPPONDON
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour		
	2012 Volumes	2035 Volumes	2012 Volumes	2035 Volumes	2035 + NB Right Lane
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
WB - Left	A/9	B/11*	B/11	C/17*	C/17
NB - Left/(right)	B/15	C/24*	C/24	F/444*	F/479
Right					C/18*

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- WB = westbound, NB = northbound
- DeKalb is east-west. Rippondon is north-south.
- * = Truck route movement

Table 23
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
DEKALB STREET/RIPPONDON STREET - 2035
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	Existing Geometry	Add NBRTL	Existing Geometry	Add NBRTL
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Through/right	B/19	B/19	C/31	C/31
WB - *Left	A/10	A/10	B/18	B/18
Through	B/14	B/14	A/10	A/10
NB - Left	D/42	D/36	D/46	D/37
*Right		C/26		C/26
Overall	B/17	B/16	C/23	C/22

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, WB = westbound, NB = northbound
- DeKalb is east-west. Rippondon is north-south.
- * = Truck route movements

Broad Street - Intersections

Rutledge Street/Broad Street – With existing geometry, this intersection currently operates at LOS A in the morning peak hour and LOS B in the afternoon peak hour and will continue to do so with projected 2035 volumes. As shown in Table 24, the intersection can still operate at LOS A in the morning and LOS B in the afternoon with either existing or road diet geometry and 2035 volumes.

Table 24
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
RUTLEDGE STREET/ BROAD STREET
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	2010		2035	
	Existing Geometry	Road Diet Geometry	Existing Geometry	Road Diet Geometry
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
Morning Peak Hour				
EB - Left/thru/right	C/32	C/32	C/33	C/33
WB - Left/thru/right	C/33	C/33	C/34	C/34
NB – Left		A/2		A/3
(Left)/through/right	A/2	A/2	A/2	A/4
SB – Left		A/0		A/2
(Left)/through/right	A/0	A/1	A/1	A/4
Overall	A/4	A/4	A/4	A/6
Afternoon Peak Hour				
EB - Left/thru/right	D/46	D/46	D/46	D/46
WB - Left/thru/right	E/57	E/57	E/64	E/64
NB – Left		A/6		A/1
(Left)/through/right	A/8	A/9	A/5	A/4
SB – Left		A/1		A/5
(Left)/through/right	A/0	A/1	A/2	A/5
Overall	B/15	B/16	B/15	B/16

Notes:
- LOS = Level of Service. Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- Rutledge is east-west. US 521 is north-south.

DeKalb Street/Broad Street – This intersection currently operates with split phases on Broad Street. This was most likely implemented to address the lack of left turn lanes on Broad at the intersection. Because the road diet geometry will provide left turn lanes at this intersection, the split phasing can be removed with the implementation of the road diet geometry.

As shown in Table 25 for the morning peak hour, the intersection currently operates acceptably. With existing volumes and a change to road diet geometry, overall LOS would change from C to D with the addition of nine seconds per vehicle if the signal still ran with split phases. Without the split phases, overall LOS C would be maintained, and overall delay would be reduced by one second per vehicle. With 2035 projected volumes and existing geometry, the LOS at this intersection will be F. If the road diet were implemented without changing the phasing, the operation would remain at LOS F, but the delay would increase by nearly a minute per vehicle. However, the road diet geometry without split phasing would improve operation to LOS D in 2035.

As shown in Table 26 for the afternoon peak hour, the intersection currently operates at LOS E, and changing to the road diet geometry without changing the phasing would change the LOS from E to F and increase delay per vehicle by almost a minute. Without the split phases, overall LOS would improve from E to D with a reduction of two seconds per vehicle. With 2035 projected volumes and existing geometry, the LOS at this intersection will be F during the afternoon peak hour. If the road diet geometry were implemented without a change in phasing, the LOS would remain at F, but delay per vehicle would increase by over a minute. By eliminating the split phases, the overall LOS and delay would be unchanged when compared to operation with existing geometry. However, delay for the northbound through/right would be high. A northbound right turn lane should be considered for 2035.

Table 25
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
DEKALB STREET/ BROAD STREET – MORNING PEAK HOUR
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	2010			2035		
	Existing Geometry	Road Diet Geometry	Road Diet No Split	Existing Geometry	Road Diet Geometry	Road Diet No Split
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
Morning Peak Hour						
EB - Left	B/18	C/22	B/17	C/25	C/26	C/24
Through/right	C/31	D/38	C/28	F/95	F/132	D/43
WB - Left	B/18	C/24	B/17	D/47	E/60	D/46
Through/right	C/33	D/46	C/29	F/158	F/228	E/73
NB – Left		C/22	B/12		D/36	B/19
(Left)/through/right	C/28	D/55	D/36	D/36	F/143	E/58
SB – Left		C/30	B/17		C/31	B/17
(Left)/through/right	D/39	D/54	D/38	D/44	F/129	D/49
Overall	C/31	D/42	C/29	F/98	F/156	D/55

Notes:

- LOS = Level of Service. Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- DeKalb is east-west. Broad is north-south.

Table 26
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
DEKALB STREET/ BROAD STREET – AFTERNOON PEAK HOUR
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	2010			2035			
	Existing Geometry	Road Diet Geometry	Road Diet No Split	Existing Geometry	Road Diet Geometry	Road Diet No Split	RD No Split Add NBRTL
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	
Afternoon Peak Hour							
EB - Left	C/22	C/22	C/24	D/54	D/54	D/54	D/54
Through/right	E/56	E/56	E/60	F/203	F/203	F/203	F/203
WB - Left	D/42	D/42	D/53	F/110	F/110	F/110	F/110
Through/right	D/36	D/36	D/38	F/97	F/97	F/97	F/97
NB – Left		D/46	C/21		D/40	C/26	C/26
(Left)/through/(right)	F/91	F/423	F/103	F/291	F/780	F/420	F/164
Right							A/10
SB – Left		D/48	C/29		D/55	D/51	D/46
(Left)/through/right	E/66	F/125	D/40	F/163	F/337	F/86	F/86
Overall	E/56	F/110	D/54	F/174	F/253	F/174	F/128

Notes:

- LOS = Level of Service. Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound, RD = Road Diet
- Dekalb is east-west. Broad is north-south.

Signal Warrant Volume Comparisons

Each of the three truck routes includes one or two unsignalized intersections at which the truck route movements are required to stop. In planning improvements for the routes, it is helpful to know if a signal is currently warranted or may be warranted in the future. The Manual on Uniform Traffic Control Devices, 2003 (MUTCD) describes the traffic volume and operational conditions that warrant consideration of traffic control signals. The first warrant is volume-based, and the minimum volumes to meet the warrant are presented in tabular form for Case A and Case B. For each case there is an option to reduce the volumes to 70 percent for instances in which the speed on the major street exceeds 40 miles per hour or the signal is located in a community with a population of 10,000 or less. Because the population of Camden is less than 10,000, the 70 percent factor was checked, but the 100 percent factor was also checked for informational purposes.

For both cases of Warrant 1, a minimum of eight hours of exceeding minimum volumes is required to meet the Warrant. Warrants 2 and 3 also have minimum volume bases. For Warrant 2, four hours are needed, and for Warrant 3, one hour is needed. Excerpts from the Manual on Uniform Traffic Control Devices, 2003 (MUTCD) are included in Appendix E.

Because only peak hour volumes have been projected for this study, complete signal warrant volume comparisons cannot be made, but the peak hour volumes can indicate if there is a potential for a signal to be needed in the future. For instance, it is SCDOT standard practice to place left turn lanes on all approaches of signalized intersections. Therefore, if there is an indication that a signal will be needed in the future, at a minimum, left turn lanes on the major street should be included in any improvements undertaken in this project.

The existing and projected peak hour volumes at the intersections examined were compared to signal warrant volumes as shown in Tables 27 through 33, and the comparisons indicate that:

- At US 521/Boykin, the current volumes already meet Warrant 3 at 70 percent, and projected volumes are likely to meet additional warrants. A signal should be planned for the near future at this intersection.
- At US 521/Ehrenclou, the side street traffic is primarily right turns. Therefore, the signal warrant volume comparison was conducted using the side street rights and the side street traffic and the southbound approach only as the major street traffic as though this were an intersection of two one-way streets. Currently, both peak hours meet Warrant 2 volumes at 70 percent, and it is likely that future volumes will exceed signal warrant volumes. A signal should be planned at this intersection for the future.
- At Chestnut Ferry/Ehrenclou/York, the afternoon peak hour already meets 70 percent of Warrant 3, and the volumes are likely to meet other warrants in the future. As shown in Table 28, if the current alignment is maintained, signal warrant volumes are likely to be exceeded in the future. As shown in Table 29, the intersection volumes are also likely to exceed warrant volumes in the future if the intersection is realigned. A signal should be planned at this intersection for the near future under either alignment.
- At York/Mill only one hour's volumes currently exceed any signal warrant volumes. Projected volumes do not exceed warrant volumes to the extent that the projected volumes at the other intersections exceed warrant volumes. Barring a large, concentrated development near the intersection, it is not likely that a signal will be needed at this intersection in the foreseeable future.

- At York/Rippondon, projected volumes do not exceed warrant volumes to the extent that the projected volumes at the other intersections exceed warrant volumes. Barring a large, concentrated development near the intersection, it is not likely that a signal will be needed at this intersection in the foreseeable future although delay on the side street will be high. Some non-truck traffic may be diverted from westbound York due to this realignment.
- At DeKalb/Rippondon, the side street traffic is primarily right turns. Therefore, the signal warrant volume comparison was conducted using the side street rights and the eastbound approach only for major street traffic as though this were an intersection of two one-way streets. The intersection may meet Warrant 3 at 70 percent in 2035.

Table 27
SIGNAL WARRANT VOLUME COMPARISONS – US 521/BOYKIN ROAD
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2010 Volumes										
AM Peak	634	103				X		X		
PM Peak	590	273	X	X		X	X	X		X
2035 Volumes										
AM Peak	919	149		X	X	X	X	X	X	X
PM Peak	856	396	X	X	X	X	X	X	X	X
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on Boykin is 40 miles per hour.

Table 28
SIGNAL WARRANT VOLUME COMPARISONS – US 521/EHRENCLOU ROAD
EASTBOUND RIGHT TURNS AND SOUTHBOUND APPROACH ONLY
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2010 Volumes										
AM Peak	533	169		X				X		
PM Peak	463	228		X				X		
2035 Volumes										
AM Peak	773	245	X	X		X	X	X		X
PM Peak	671	330	X	X		X	X	X		X
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on US 521 changes from 35 to 45 miles per hour at Ehrenclou.

Table 29
SIGNAL WARRANT VOLUME COMPARISONS – CHESTNUT FERRY ROAD/EHRENCLOU ROAD/YORK STREET
EXISTING ALIGNMENT
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2010 Volumes										
AM Peak	526	176	X	X		X		X		
PM Peak	612	242	X	X		X	X	X		X
2035 Volumes										
AM Peak	763	255	X	X	X	X	X	X		X
PM Peak	888	351	X	X	X	X	X	X	X	X
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on Chestnut Ferry is 35 miles per hour.

Table 30
SIGNAL WARRANT VOLUME COMPARISONS – CHESTNUT FERRY ROAD/EHRENCLOU ROAD/YORK STREET REALIGNMENT – TWO SIDE STREET APPROACH LANES
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2010 Volumes										
AM Peak										
PM Peak										
2035 Volumes										
AM Peak	731	287	X	X		X	X	X		X
PM Peak	937	302	X	X	X	X	X	X	X	X
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on Ehrenclou is 35 miles per hour.

Table 31
SIGNAL WARRANT VOLUME COMPARISONS – YORK STREET/MILL STREET
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2010 Volumes										
AM Peak	541	92				X				
PM Peak	521	90								
2035 Volumes										
AM Peak	784	133		X	X	X		X		X
PM Peak	754	130		X	X	X		X		X
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on York is 30 miles per hour.

Table 32
SIGNAL WARRANT VOLUME COMPARISONS – YORK STREET/RIPPONDON STREET
REALIGNMENT – ONE SIDE STREET APPROACH LANE
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2035 Volumes										
AM Peak	451	379		X			X	X		X
PM Peak	500	171	X	X				X		
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on York is 30 miles per hour.

Table 33
SIGNAL WARRANT VOLUME COMPARISONS – DEKALB STREET/RIPPONDON STREET
NORTHBOUND RIGHT TURNS AND EASTBOUND APPROACH ONLY
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Hour	Traffic Volumes		Warrant							
	Major St	Side St	1A		1B		2		3	
			100%	70%	100%	70%	100%	70%	100%	70%
2010 Volumes										
AM Peak	503	38								
PM Peak	933	59				X				
2035 Volumes										
AM Peak	694	72				X				
PM Peak	1305	99			X	X	X	X		X
Hours Required			8	8	8	8	4	4	1	1

Notes:

- Speed limit on DeKalb is __ miles per hour.

Need for Left Turn Lanes

In general, it is desirable to have a left turn lane on the major street at a driveway or side street so that vehicles stopped to turn left have a place to store outside the through lane. This arrangement reduces the potential for rear end collisions. The disadvantages of the additional lane are the maintenance costs and the additional run-off caused by a paved surface as well as the extra right-of-way required.

Because the addition of a left turn lane has both advantages and disadvantages, it is appropriate to determine if the traffic volumes at the intersection are such that the advantages of the lane would outweigh the disadvantages. In some segments in this project, there are multiple closely spaced driveways. In some cases, the segments are short, and if there are turn lanes on either end, there is not enough length to taper in and out of a three-lane section. In these cases, a continuous left turn lane is needed. In cases where the segments are longer and there are fewer driveways or side streets, another method for determining the need for a left turn lane is needed. Although there is little in the way of formal analysis available for the combination urban, suburban, and rural streets which the subject streets are, the South Carolina Highway Design Manual, 2003 does offer guidelines for two-lane highways which can be used as a guidelines in this case.

Each segment of the truck routes was examined for the need for left turn lanes.

Boykin – Knights Hill to Liberty Hill

In this 1.2-mile section, turn lanes are already installed at the Knights Hill and Liberty Hill intersections. Between the intersections, however, there are only two locations at which left turn lanes should be considered. These locations are at Sunny Hill Road and the recycling center. Three driveways into the Springdale race course are closed to normal traffic.

Left turn counts were taken at Sunny Hill and at the recycling center in April, 2012 during the afternoon peak hour which should be the peak hour for these volumes. The peak hour lefts were plotted on the guideline graph for 45 miles per hour with the 2035 projected opposing and advancing volumes on Boykin. The graph is included in Appendix F and indicates that a left turn lanes should be considered at the recycling center and at Sunnyhill Drive.

Boykin – Liberty Hill to Broad

In this short 0.4-mile section there are 20 driveways along with a turn lane at Liberty Hill. Therefore, a continuous left turn lane should be provided.

Chestnut Ferry – DeKalb to Ehrenclou

In this short 0.5-mile section there is a turn lane at DeKalb, and there will be a turn lane at York. In addition, there are 39 driveways. Therefore, a continuous left turn lane should be provided.

Ehrenclou – Chestnut Ferry to Broad

In this 1.2 mile section there will be a shadow left turn lane at (or a left turn lane onto the fourth leg of the intersection if a fourth leg is built) and a left or right turn lane at Broad. Between these locations there are 14

driveways most of which are in the northwestern third of the segment. According to Hussey, Gay, Bell, and DeYoung, the property surrounding the remaining two thirds of the segment is primarily wetlands with little prospect for the need for driveways in the future. Therefore, the southeastern two thirds of this segment can operate safely without a turn lane except at Ehrenclou.

York – Broad to Mill

In this short 0.5-mile section, there is a turn lane at Broad and there are 35 driveways. Therefore, a continuous left turn lane should be provided in this segment.

York – Mill to Rippondon

In this short 0.3-mile section, there will be a left turn lane at Mill and a shadow left turn lane at Rippondon along with 11 driveways. Therefore, a continuous three-lane section should be provided in this segment.

Rippondon – York to DeKalb

In this short 0.3-mile section, there will be turn lanes at York and at DeKalb along with 8 driveways. Therefore, a continuous three-lane section should be provided in this segment.

Turn Lane Lengths

While the Level of Service at an intersection can describe the basic operation of traffic, other factors influence that operation. For instance, if turn queues extend past the storage for the queue, they can interrupt traffic flow. Therefore, an estimate of the storage needs for turns is needed where separate turn lanes are planned. Many of the new turn lanes which will result from the improvements in the project will be formed from the middle lane of the three-lane sections planned. Therefore, the only suggested new turn lanes at the truck route intersections whose lengths were checked in this study are the turn lanes suggested on US 521 at Boykin, Ehrenclou at US 521, Rippondon at Dekalb, Boykin at Sunnyhill, Boykin at the recycling center, Old River at Chestnut Ferry (if pursued), and on York at Ehrenclou upon realignment .

At signalized intersections, the desired turn lane lengths can be calculated as follows:

- Vehicles turning per hour/signal cycles per hour = vehicles turning per cycle
- Vehicles turning per cycle X percentage of time movement has red signal = vehicles requiring storage
- Vehicles requiring storage X peaking factor of 2 = design number of vehicles
- Design number of vehicles X 25 feet/vehicle = desired storage length

For unsignalized turns, the storage lengths were calculated as follows:

- Number of vehicles which arrive in two minutes = stored vehicles
- Stored vehicles X peaking factor of 2 = design number of vehicles
- Design number of vehicles X 25 feet/vehicle = storage length

The storage lengths calculated as shown above are desired lengths. Where right-of-way, constructability, context, or other issues arise, it is reasonable to calculate a minimum turn lane length. This can be done using a peaking factor of 1.5 and a car length of 20 feet. The calculated turn lane lengths for the truck route intersections are shown in Table 34.

Table 34
CALCULATED TURN LANE LENGTHS – TRUCK ROUTE INTERSECTIONS
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Turn Lane Lengths		
	Minimum	Desirable	Comment
Southbound US 521 right at Boykin	100’	150’	New
Southbound US 521 left at Boykin	0’	0’	SCDOT minimum = 150’
Northbound US 521 left at Boykin	20’	50’	SCDOT minimum = 150’
Eastbound Boykin left at Sunnyhill	60’	100’	SCDOT minimum = 150’
Eastbound Boykin left at recycling	20’	25’	SCDOT minimum = 150’
Northbound US 521 right at York	140’	225’	Depending on lane alignment, northbound outside lane on US 521 could drop as this right turn lane.
Northbound Old River right at CF	60’	100’	If pursued
Westbound York left at Ehrenclou	100’	175’	Upon realignment
Eastbound Ehrenclou left at US 521	20’	25’	SCDOT minimum = 150’
Northbound Rippondon right at York	Does not stop		SCDOT minimum = 300’
Westbound York right at Rippondon	20’	25’	SCDOT minimum = 100’
Northbound Rippondon left at US 1	40’	50’	SCDOT minimum = 150’

This study was conducted over a year and a half, and during that time, the SCDOT began to require that turn lane lengths also be estimated using the SYNCHRO 95th percentile queue. All of the truck route capacity analyses conducted early in the study had been run using HCS software, and it would not be productive to run all of those again using SYNCHRO to get a SYNCHRO 95th percentile queue. The Broad Street road diet capacity analyses were run later in the project however, and they were conducted using SYNCHRO so that the SYNCHRO 95th percentile queues could be calculated. The calculated and SYNCHRO turn lane lengths are shown in Table 35 for the Broad Street Road Diet intersections.

Table 35
CALCULATED TURN LANE LENGTHS – BROAD STREET ROAD DIET INTERSECTIONS
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	DOT Minimum	Manual Calculation	SIMTRAFFIC 95th
		Minimum/Desired	
Northbound Left at York	150’	60’/75’	416’
Southbound Left at York	150’	40’/50’	50’
Northbound Left at Rutledge	150’	40’/50’	38’
Southbound Left at Rutledge	150’	60’/100’	63’
Northbound Left at DeKalb	150’	100’/175’	445’
Southbound Left at DeKalb	150’	160’/250’	704’
Northbound Left at DeKalb	150’	140’/225’	457’

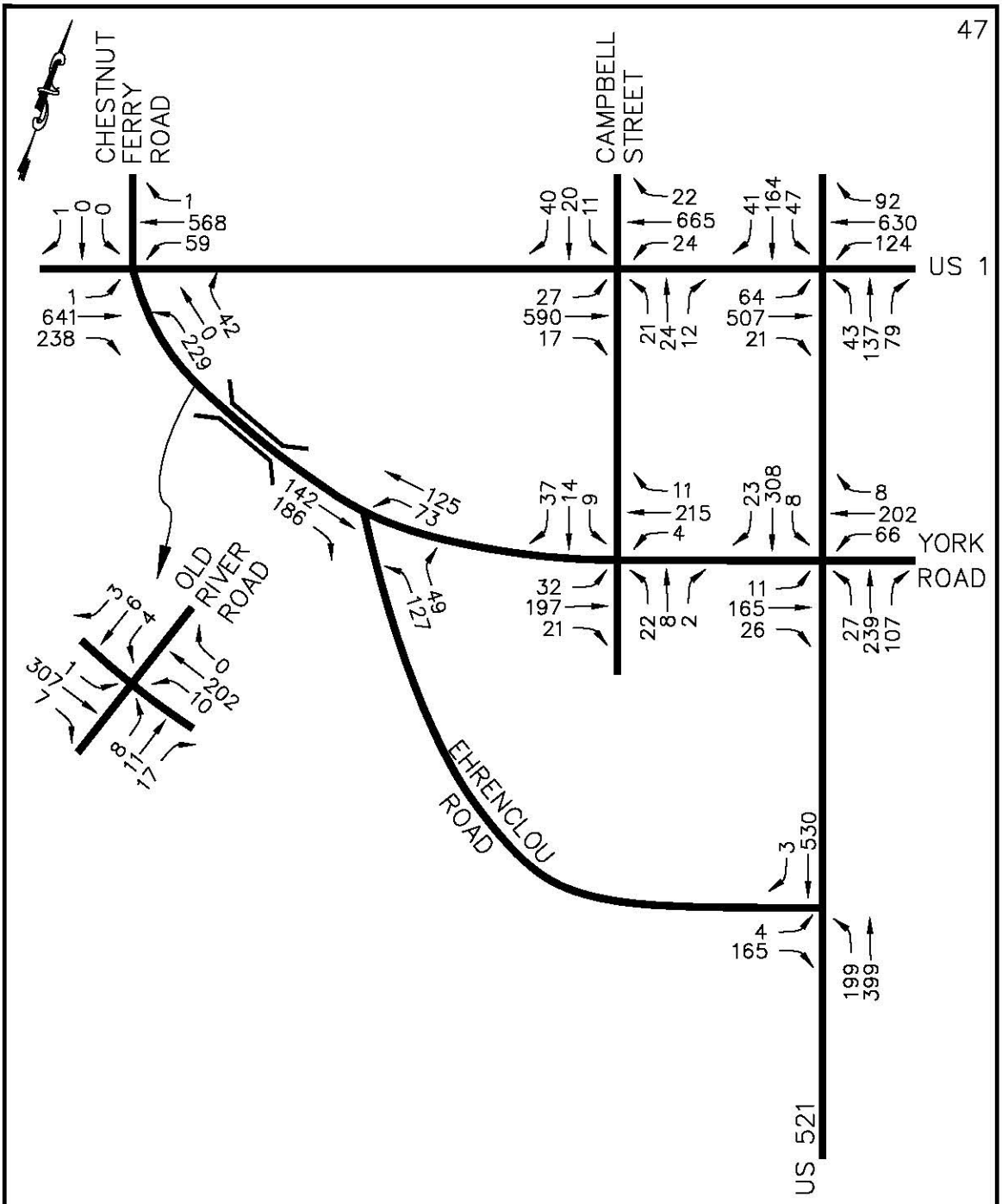
Detour Examination

One of the improvements planned for Segment 1 of the Camden truck route is the replacement of the bridge on Chestnut Ferry Road just east of Old River Road. The proposed detour route will employ Campbell Street as shown in Appendix G.

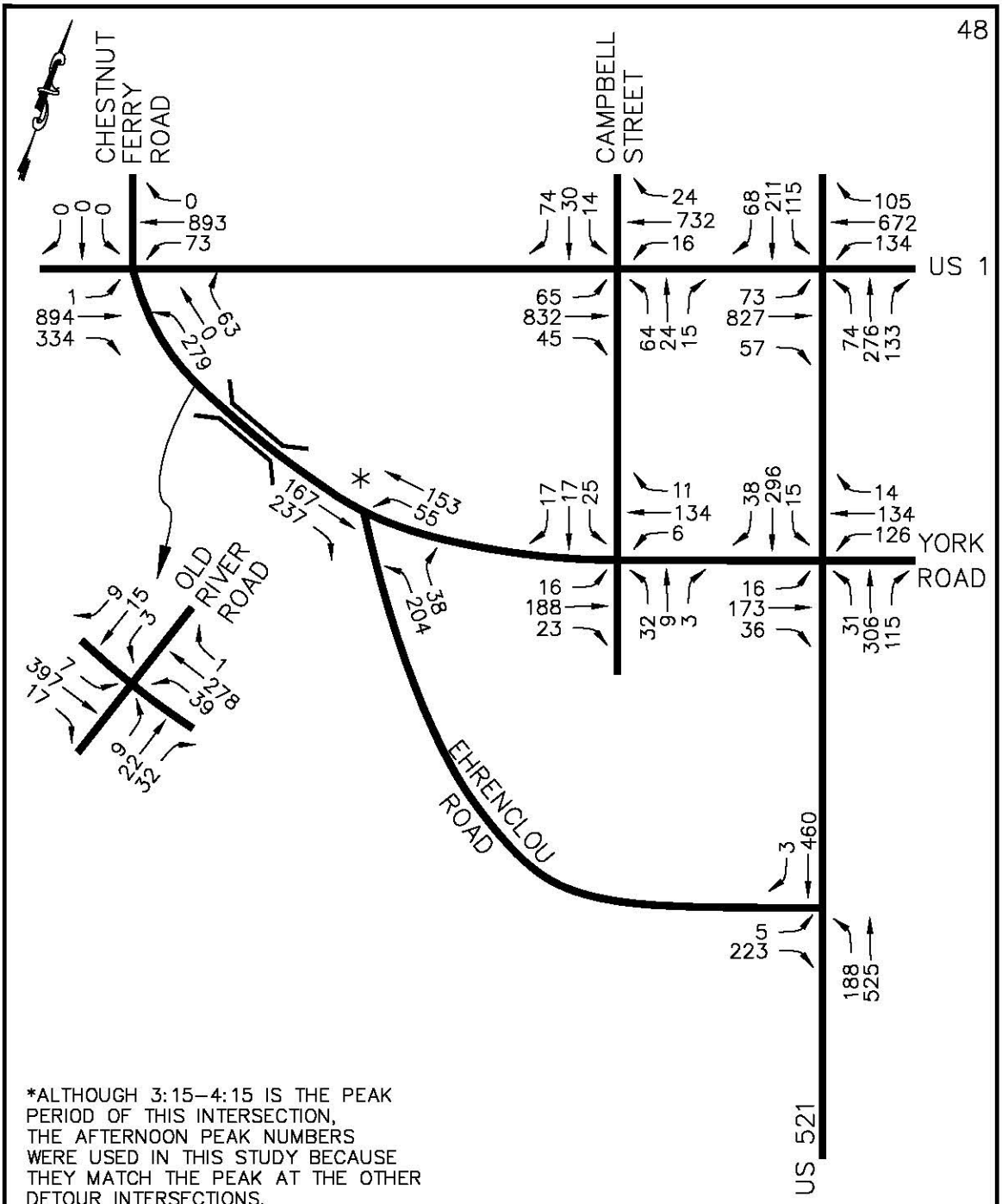
The 2010 peak hour volumes for the detour intersections are shown in Figure 8 for morning peak hour and in Figure 9 for the afternoon peak hour. The volumes which will be affected by the detour were reassigned as shown in Figure 10 for the morning peak hour and in Figure 11 for the afternoon peak hour. The resulting detour route volumes are shown in Figure 12 for the morning peak hour and in Figure 13 for the afternoon peak hour.

Capacity analyses were conducted for the detour intersections for existing volumes and detour volumes. The results are shown in Tables 36 through 41 and indicate that:

- The intersections of US 1/Chestnut Ferry, US 521/York, US 521/Ehrenclou, and York/Campbell can operate acceptably with detour volumes.
- US 521/Campbell can operate acceptably with detour volumes with a temporary timing change.
- US 1/US 521 will experience additional delay during the detour even with a temporary timing change.



2010 EXISTING DETOUR ROUTE VOLUMES MORNING PEAK HOUR	Figure 8 4/26/12
CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY CAMDEN, SOUTH CAROLINA	Sprague & Sprague Consulting Engineers



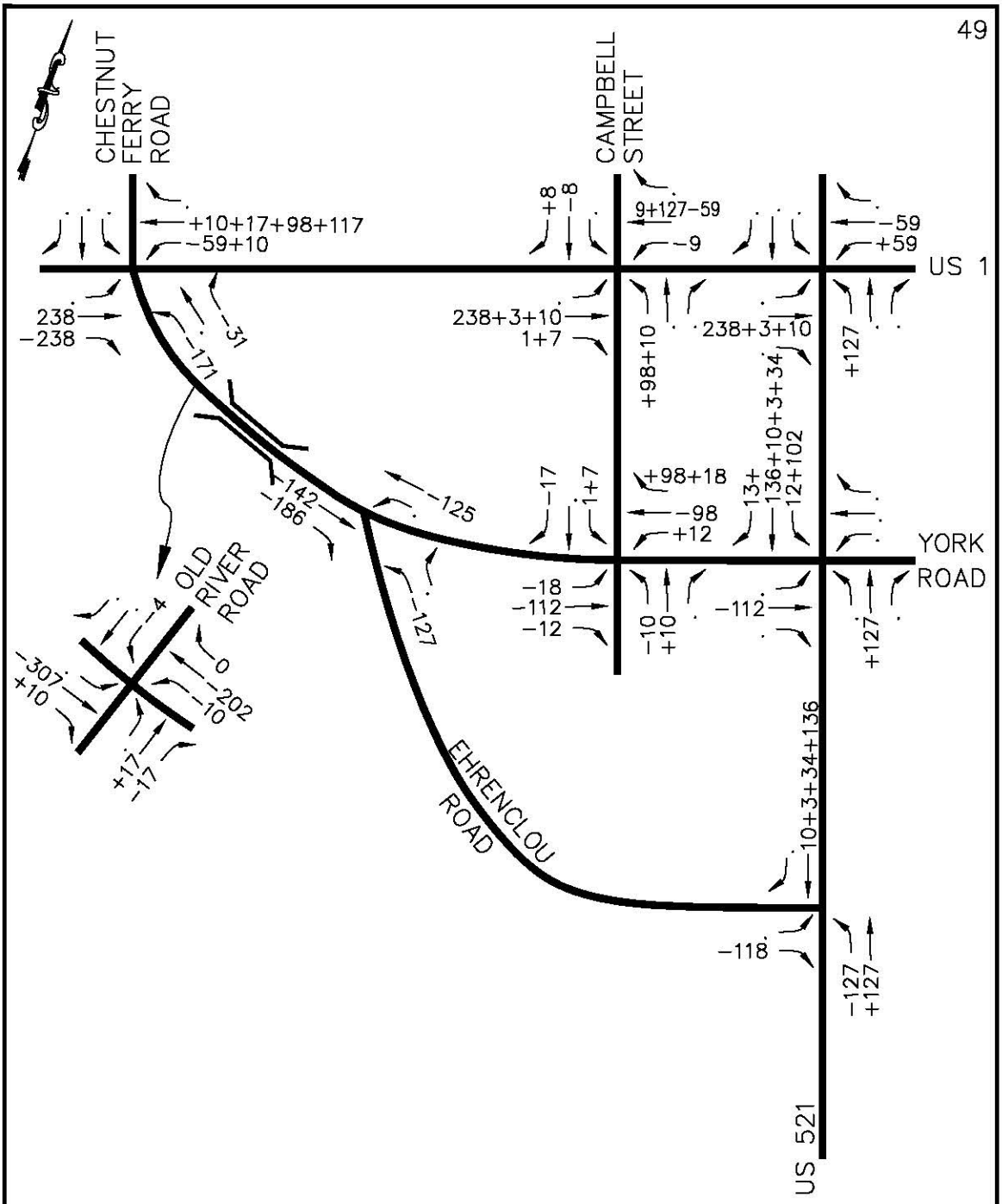
2010 EXISTING DETOUR ROUTE VOLUMES AFTERNOON PEAK HOUR

Figure 9

4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers



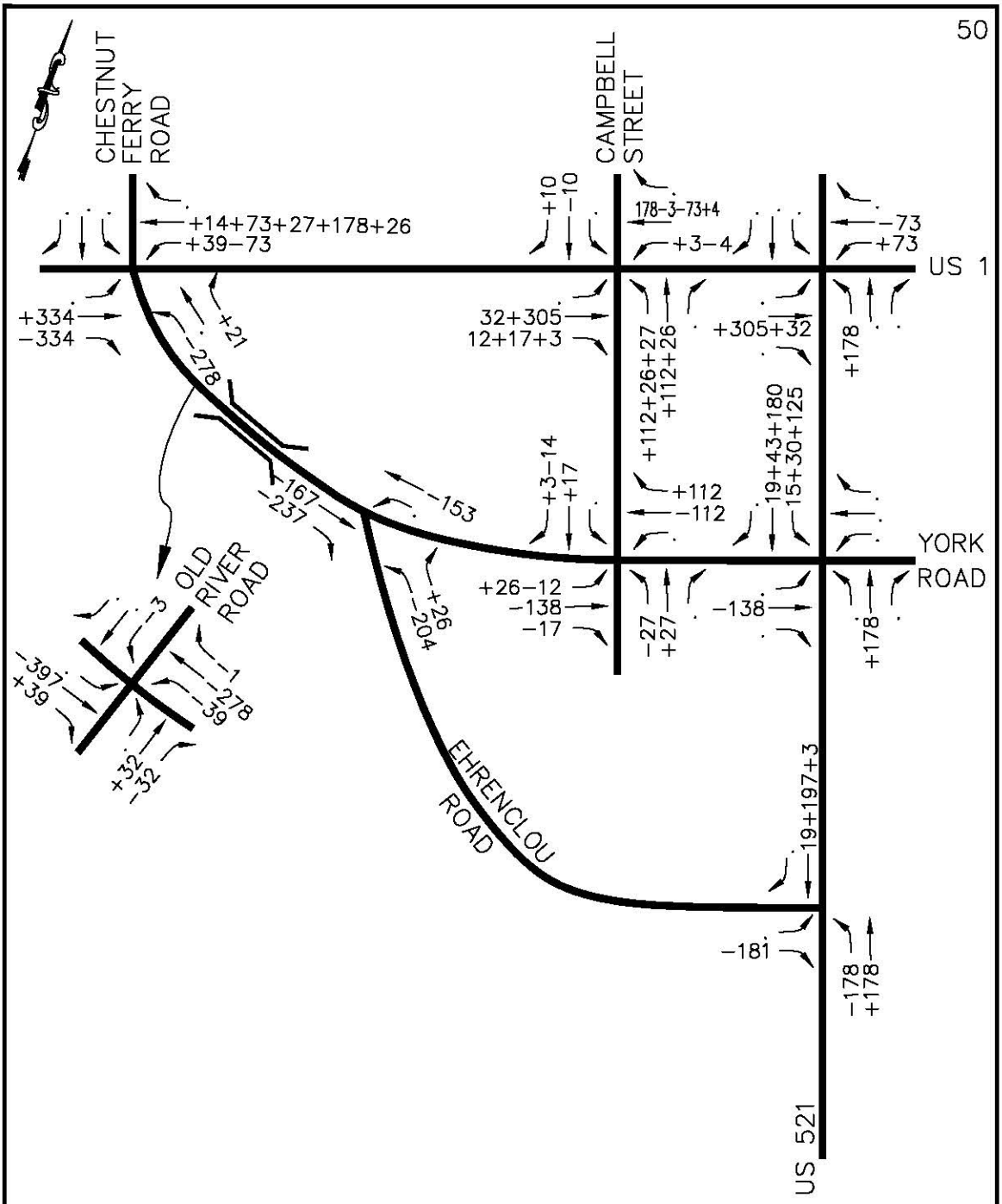
2010 REROUTED DETOUR ROUTE MOVEMENTS MORNING PEAK HOUR

Figure 10

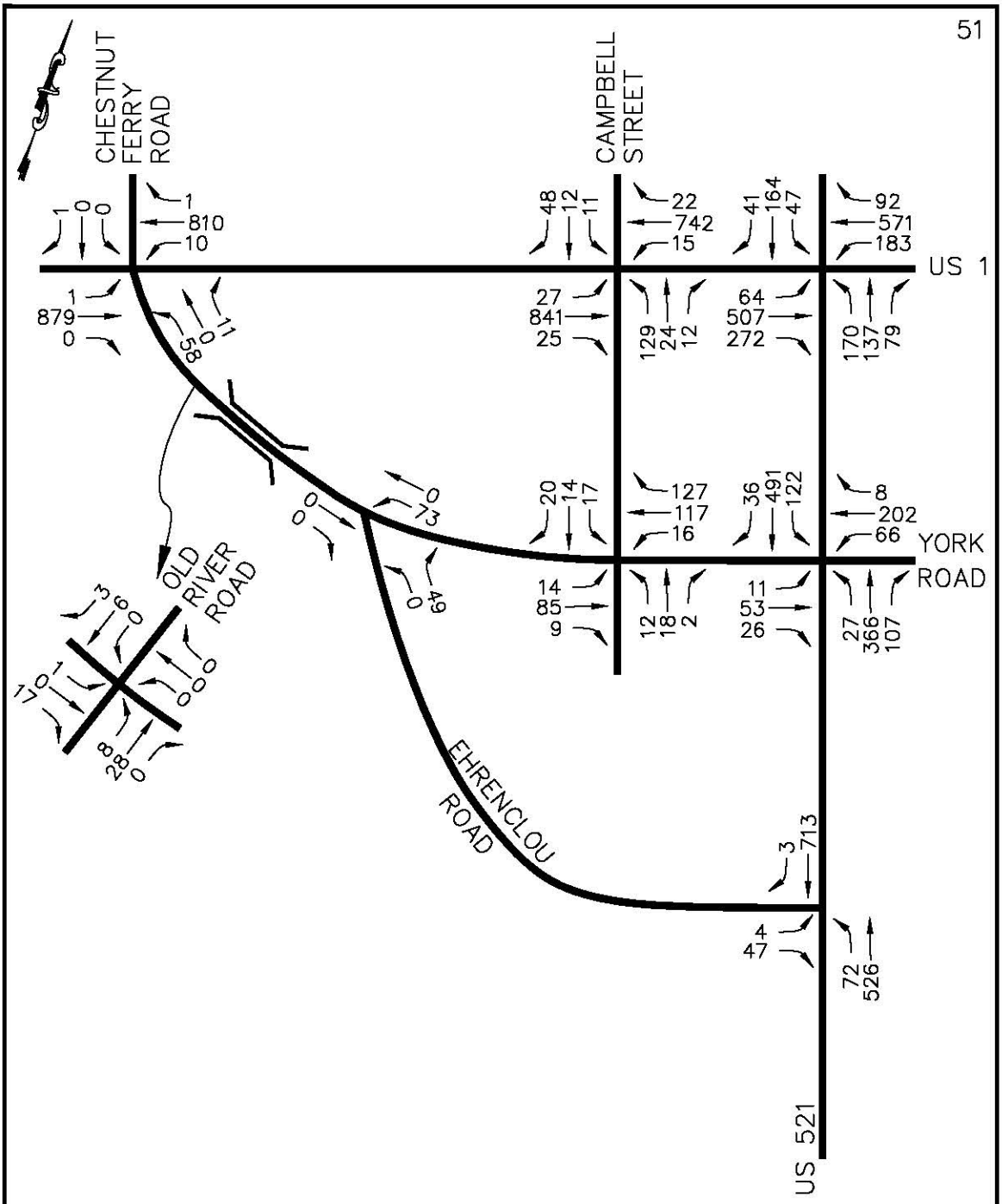
4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers



2010 REROUTED DETOUR ROUTE MOVEMENTS AFTERNOON PEAK HOUR	Figure 11
	4/26/12
CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY CAMDEN, SOUTH CAROLINA	Sprague & Sprague Consulting Engineers



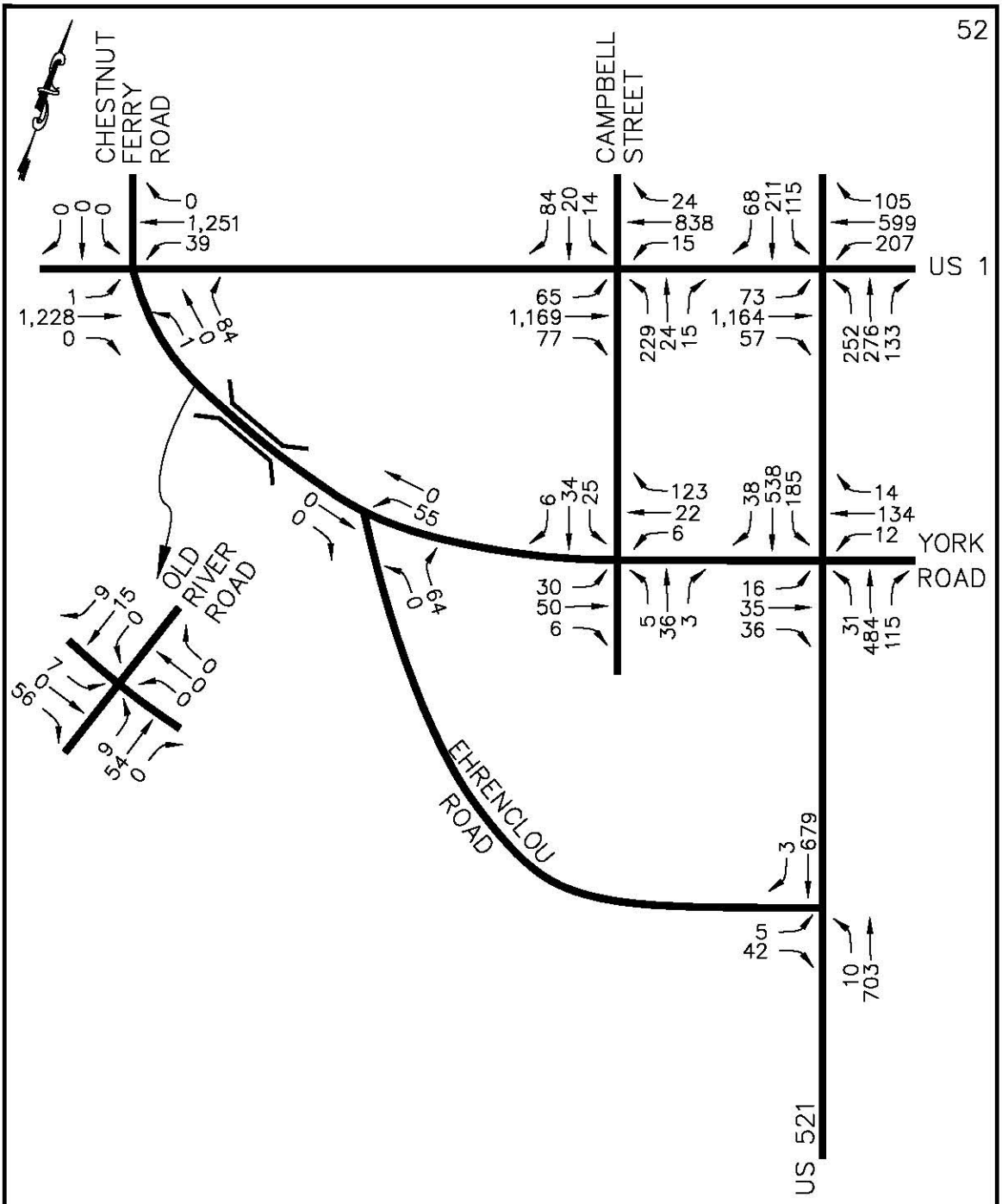
2010 RESULTING DETOUR ROUTE VOLUMES MORNING PEAK HOUR

Figure 12

4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers



2010 RESULTING DETOUR ROUTE VOLUMES AFTERNOON PEAK HOUR

Figure 13

4/26/12

CAMDEN TRUCK ROUTE AND BROAD STREET
ROAD DIET TRAFFIC STUDY
CAMDEN, SOUTH CAROLINA

Sprague & Sprague
Consulting Engineers

Table 36
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
US 1/CHESTNUT FERRY ROAD – DETOUR EXAMINATION
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	Detour Volumes	2010 Volumes	Detour Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Left	A/7	A/7	A/9	A/9
Through	A/9	A/10	B/12	B/15
Right	A/2	A/1	A/2	A/1
WB - Left	A/9	A/8	B/12	B/14
Through/right	A/9	A/10	B/14	C/21
NB - Left	C/25	C/23	C/24	C/20
Left/through/right	C/31	C/23	C/25	C/22
SB - Left/through/right	D/40	D/40	D/44	D/44
Overall	B/11	B/10	B/13	B/19

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, WB = westbound, NB = northbound, SB = southbound
- US 1 is east-west. Chestnut Ferry is north-south.

Table 37
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERECTION
US 521/YORK STREET – DETOUR EXAMINATION – CHANGE TIMING
Camden Truck Route and Broad Street Road Diet Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	Detour Volumes	2010 Volumes	Detour Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB – Left	C/26	C/26	C/35	D/39
Through/right	D/36	C/20	D/48	C/23
WB – Left	D/39	C/32	F/129	E/66
Through/right	D/42	D/42	D/43	D/49
NB – Left/through/right	A/7	A/8	A/8	A/8
SB – Left/through/right	A/9	B/15	A/8	B/12
Overall	C/20	C/18	C/31	B/18

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = Eastbound, WB = westbound, NB = northbound, SB = southbound
- York is east-west. US 521 is north-south.

Table 38
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
US 1/CAMPBELL STREET – DETOUR EXAMINATION
Camden Truck Route Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour			Afternoon Peak Hour		
	2010 Volumes	Detour Volumes	Detour Volumes – Change Timing	2010 Volumes	Detour Volumes	Detour Volumes – Change Timing
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB- Left	A/3	A/3	A/9	A/5	A/5	B/19
Through/right	A/3	A/4	B/13	A/6	A/7	C/26
WB – Left	A/3	A/3	A/9	A/4	A/4	B/15
Through/right	A/3	A/4	B/12	A/5	A/6	B/19
NB – Left/thru/right	E/64	F/728	D/51	F/114	F/872	D/51
SB–Left/thru/(right)	F/85	E/75	C/35	E/76	E/73	C/29
Overall	B/12	F/92	B/18	B/18	F/110	C/26

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- US 1 is east-west. Campbell is north-south.

Table 39
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERSECTION
US 1/US 521 – DETOUR EXAMINATION
Camden Truck Route Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour		
	2010 Volumes	Detour Volumes	2010 Volumes	Detour Volumes	Detour Volumes – Change Timing
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB- Left	B/18	B/19	C/22	C/20	C/20
Through/right	C/31	E/66	E/56	F/175	F/175
WB – Left	B/18	D/42	D/42	F/133	F/133
Through/right	C/33	D/36	D/36	C/32	C/32
NB – Left/thru/right	C/28	D/42	F/91	F/259	F/194
SB–Left/thru/(right)	D/39	D/39	E/66	E/66	F/93
Overall	C/31	D/47	E/56	F/142	F/132

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- US 1 is east-west. US 521 is north-south.

Table 40
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED INTERSECTION
US 521/EHRENCLOU ROAD – DETOUR EXAMINATION
Camden Truck Route Traffic Study
Camden, South Carolina

Movement	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	Detour Volumes	2010 Volumes	Detour Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
NB - Left	B/10	B/10	A/10	A/9
EB – Left/right	C/17	C/18	C/20	C/20

Notes:

- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, NB = northbound
- Ehrenclou is east-west. US 521 is north-south.

Table 41
CAPACITY ANALYSIS RESULTS – SIGNALIZED INTERECTION
CAMPBELL STREET/YORK STREET – DETOUR EXAMINATION
Camden Truck Route Traffic Study
Camden, South Carolina

Approach	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes	Detour Volumes	2010 Volumes	Detour Volumes
	LOS/Delay	LOS/Delay	LOS/Delay	LOS/Delay
EB - Left	A/8	A/8	A/8	A/8
WB - Left	A/8	A/8	A/8	A/7
NB – Left/through/right	C/20	C/16	C/15	B/13
SB – Left/through/right	B/14	B/14	B/14	B/13

Notes:
- LOS = Level of Service
- Delay is in seconds per vehicle.
- EB = eastbound, WB = westbound, SB = southbound, NB = northbound
- Campbell is north-south; York is east-west.

Conclusions and Recommendations

Check of Mid-block Operation

Segment	Morning Peak Hour		Afternoon Peak Hour	
	2010 Volumes Existing Geometry	2035 Volumes Improved 2-lane	2010 Volumes Existing Geometry	2035 Volumes Improved 2-lane
	LOS	LOS	LOS	LOS
Boykin				
Knights Hill-Liberty Hill	C	D	C	D
Liberty Hill-Broad	C	C	C	C
Chestnut Ferry				
DeKalb-Ehrenclou	C	D	C	D
Ehrenclou				
Chestnut Ferry-Broad	C	C	C	C
York				
Broad-Mill	C	D	C	D
Mill-Rippondon	D	D	C	C
Rippondon				
York-DeKalb	B	C	A	B

Notes:

- LOS = Level of Service

Segment 1 - Intersections

US 1/Chestnut Ferry Road – Overall acceptable operation can be obtained in 2035 without changes.

Chestnut Ferry Road/Old River Road – The projected afternoon peak hour delay for the northbound right turn from Old River to Chestnut Ferry could be reduced by adding a northbound right turn lane. This movement does not involve the truck route. Signalization was not considered at this intersection because the side street volumes are low.

Chestnut Ferry Road/Ehrenclou Road/York Street – Along Segment 1, this is the only unsignalized intersection at which a truck must make a left turn from a side street. A realignment of the intersection to make Chestnut Ferry/Ehrenclou the through street could address the northbound left turn delay which already exists at the intersection. Side street delay would still be noticeable with realignment but it would apply to fewer vehicles and would not apply to the truck route. A signal should be planned for the near future at this intersection with either alignment because the existing volumes with the existing alignment already meet Warrant 3 (the peak hour warrant) and pedestrians at Camden High School can cross at a signalized intersection. Under signal control the intersection can operate acceptably in the future with the current alignment (assuming the addition of a westbound left turn lane and a northbound right turn lane) or with the realignment. Overall, operation will be about the same with either alignment, but the truck route movements will have less delay with the realignment.

US 521/Ehrenclou Road – A signal should be planned at this intersection for the future. The addition of an eastbound left turn lane will reduce delay for the truck route in the future whether this intersection is signalized or remains unsignalized.

Segment 2 - Intersections

US 521/Boykin Road – A signal should be planned for the near future at this intersection because the existing intersection volumes already meet Warrant 3 (the peak hour warrant). The intersection can operate acceptably under signal control with existing or 2035 volumes. The addition of a southbound right turn lane can reduce delay at the intersection, but is not required to obtained overall acceptable operation. Left turn lanes on US 521 should be included in any improvements to the US 521/Boykin intersection to prepare for future signalization. The calculated length of the southbound right turn lane is 100 feet minimum and 150 feet desirable. The northbound left turn lane calculated length is 20 feet minimum and 50 feet desirable, but the SCDOT minimum of 150 feet will apply. The SCDOT minimum of 150 feet will also apply to the southbound left turn lane.

Boykin Road/Liberty Hill Road – This intersection currently operates with little delay and will continue to do so in 2035. No improvements are recommended.

Boykin Road/Knights Hill Road –This intersection currently operates with little delay and will continue to do so in 2035. No improvements are recommended.

Segment 3 - Intersections

York Street/Broad Street – This intersection currently operates acceptably, and can continue to do so with the streetscape geometry with little overall change in delay. The intersection can also operate acceptably with existing or road diet geometry with projected 2035 volumes with little difference in overall delay. Although overall operation is and can continue to be acceptable, delay for the westbound left turn is higher than for most of the other movements, and this was observed in the field. The existing cross product for this left does not exceed 50,000, and in 2035 will only exceed it during the afternoon peak hour and only by about 5,000. However, this left is the truck route movement, and a westbound left turn phase could be added and overall acceptable operation maintained. Depending on the alignment across the intersection, the northbound outside lane on US 521 could drop as a right turn lane.

York Street/Mill Street – At this intersection, the existing truck route is Mill to York, but the change being considered is York to York. The intersection currently operates acceptably, but delay will increase southbound in 2035 with the truck route on Rippondon. This delay would also occur without the movement of the truck route. Moving the truck route allows trucks to avoid this movement (southbound Mill to westbound York). This intersection is not expected to meet signal warrants in the future, and left turn lanes will be added as part of the three-lane section planned for this segment.

US 1/Mill Street – The existing truck route is DeKalb from the east to Mill. The change being considered moves the truck route east to Rippondon, and the DeKalb/Mill intersection will no longer be on the truck route. The intersection operates acceptably overall, but the southbound through and the eastbound left delay will increase in the future. Removal of the truck route will allow consideration of a timing change and an eastbound left turn phase in the future without concern for its impact on the truck route.

York Street/Rippondon – This intersection is currently oriented with York as the through street. To encourage use of a relocated truck route on Rippondon, a realignment that would make York/Rippondon the through street is being considered with left turn lanes on Rippondon as part of the three-lane section planned. The intersection currently operates acceptably. In 2035 with the trucks rerouted and the base alignment, delay for the westbound approach during the morning peak hour will be high. The addition of northbound and westbound right turn lanes will reduce this delay, but the LOS will still be F. The addition of a westbound right turn lane will reduce delay further but will not change the LOS. Some westbound York non-truck traffic may be diverted due to this high side street delay. The northbound and westbound right turn lanes should be built to minimize the side street delay given that signalization is unlikely.

DeKalb Street/Rippondon Street – The intersection currently operates acceptably and will be able to continue to do so in 2035 in the morning peak hour with the truck route. In the afternoon peak hour in 2035, however, the Rippondon approach will experience high delay. If a northbound right turn lane is added as part of the truck route, the truck movements will be able to operate acceptably, but the northbound left will continue to experience high delay under stop sign control. The intersection may meet Warrant 3 at 70 percent in 2035. Although SCDOT is usually reluctant to signalize an intersection that is not near a school based on Warrant 3, the location of this intersection on the truck route may add to the justification for its signalization. The intersection can operate acceptably as a signal with existing geometry, but delay for the northbound right turn can be reduced by adding a northbound right turn lane. The distance between this intersection and the closest signalized intersection which is at Fairlawn is only about 500 feet, about half the desirable separation of 1000 feet. In this case, however, the queue at Fairlawn was observed and did not exceed four vehicles per lane or about 100 feet. The projected queue for the westbound through at Rippondon is only 300 feet because the westbound through will only have red time when the northbound left has a green. The projected peak hour volume for the northbound left is only 32. Therefore, the queues between Rippondon and Fairlawn should not extend through the adjacent intersection.

Broad Street - Intersections

Rutledge Street/Broad Street – This intersection currently operates acceptably and can continue to do so in 2035 with either existing or road diet geometry.

DeKalb Street/Broad Street – This intersection currently operates with split phases on Broad Street which can be removed with the provision of left turn lanes on Broad with the road diet. During the morning peak hour, the intersection currently operates acceptably and can continue to do so with the road diet. The road diet geometry without split phasing would improve morning operation to LOS D in 2035.

In the afternoon peak hour, the intersection currently operates at LOS E, and changing to the road diet geometry without the split phases, overall LOS would improve from E to D. With 2035 projected volumes and existing geometry, the LOS at this intersection will be F during the afternoon peak hour. If the road diet geometry were implemented without split phases, the overall LOS and delay would be unchanged when compared to operation with existing geometry. However, delay for the northbound through/right would be high. A northbound right turn lane should be considered for 2035.

Need for Left Turn Lanes

Each segment was checked for the need for left turn lanes, and the following cross sections are recommended:
Boykin – Knights Hill to Liberty Hill – two lane section with left turn lanes at Knights Hill, Liberty Hill, Sunnyhill Drive, and the recycling center.
Boykin – Liberty Hill to Broad – three-lane section
Chestnut Ferry – DeKalb to Ehrenclou – three-lane section
Ehrenclou – Chestnut Ferry to Broad – two lane section between left turn lane at Broad and left turn lanes into driveways near school and at York
York – Broad to Rippondon – three-lane section
Rippondon – York to DeKalb – three-lane section

Detour Examination

The detour which will be required for reconstructing the Chestnut Ferry Bridge was examined with these findings:

- The intersections of US 1/Chestnut Ferry, US 521/York, US 521/Ehrenclou, and York/Campbell can operate acceptably with detour volumes.
- US 521/Campbell can operate acceptably with detour volumes with a temporary timing change.
- US 1/US 521 will experience additional delay during the detour even with a temporary timing change.

Appendix A

EXISTING TRAFFIC COUNTS

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other : S&S

File Name : 10147-03
Site Code : 01014703
Start Date : 11/17/2010
Page No : 1

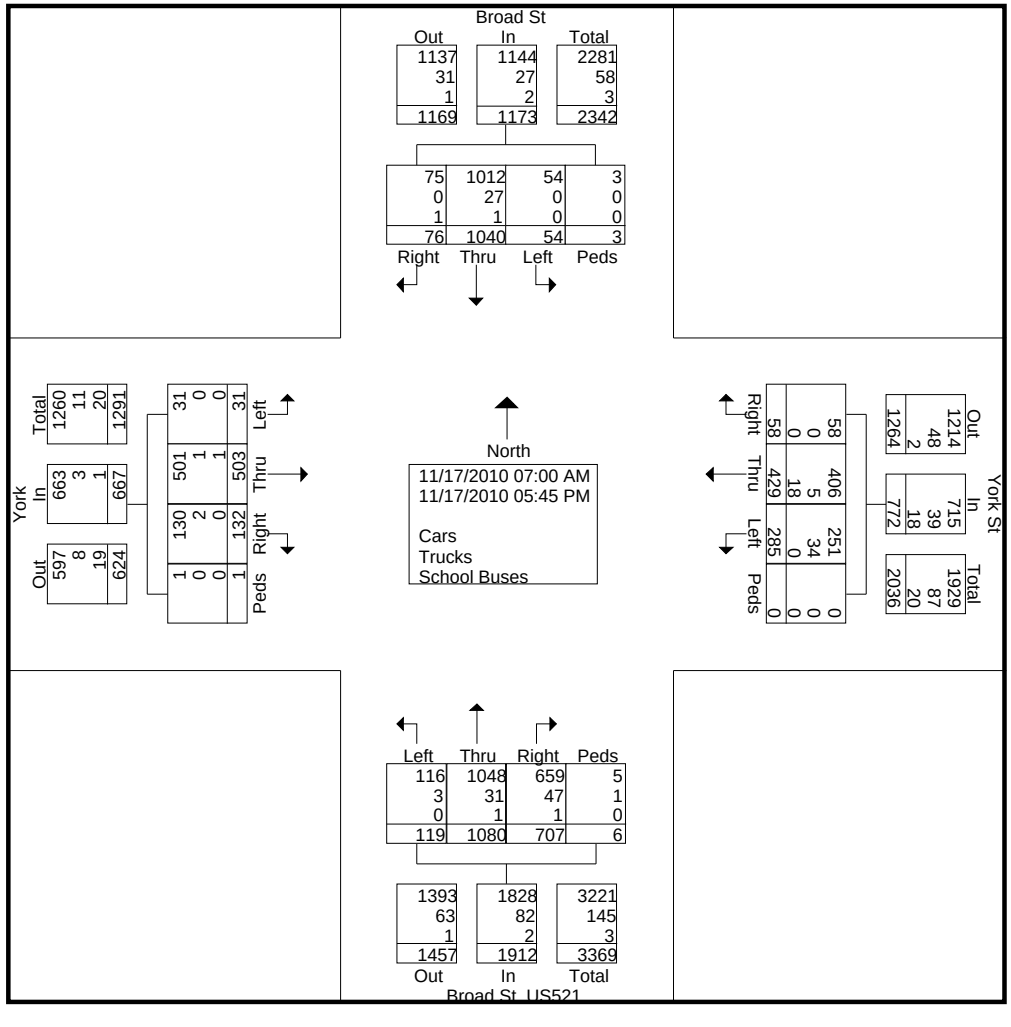
Groups Printed- Cars - Trucks - School Buses

	Broad St US521 Northbound					Broad St Southbound					York Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	48	44	0	94	1	59	2	1	63	0	18	5	0	23	24	20	1	0	45	225
07:15 AM	5	57	50	0	112	6	80	4	0	90	0	27	5	0	32	12	30	3	0	45	279
07:30 AM	10	48	37	1	96	2	85	12	0	99	2	47	5	0	54	17	53	0	0	70	319
07:45 AM	11	83	41	0	135	4	64	16	0	84	3	53	5	0	61	11	50	2	0	63	343
Total	28	236	172	1	437	13	288	34	1	336	5	145	20	0	170	64	153	6	0	223	1166
08:00 AM	5	54	35	0	94	1	51	1	0	53	0	21	9	0	30	24	24	3	0	51	228
08:15 AM	4	68	26	0	98	2	40	2	0	44	2	17	3	0	22	14	17	6	0	37	201
08:30 AM	11	76	41	0	128	0	46	2	0	48	1	17	7	0	25	23	23	4	0	50	251
08:45 AM	7	84	40	1	132	4	42	4	0	50	0	10	3	0	13	16	13	3	0	32	227
Total	27	282	142	1	452	7	179	9	0	195	3	65	22	0	90	77	77	16	0	170	907
*** BREAK ***																					
04:00 PM	11	46	40	1	98	4	72	6	0	82	6	39	8	0	53	15	36	7	0	58	291
04:15 PM	8	52	43	0	103	4	79	5	1	89	3	37	9	1	50	22	32	5	0	59	301
04:30 PM	4	67	48	0	119	6	61	7	0	74	3	24	12	0	39	24	18	6	0	48	280
04:45 PM	8	87	48	0	143	4	74	5	0	83	2	39	6	0	47	15	25	3	0	43	316
Total	31	252	179	1	463	18	286	23	1	328	14	139	35	1	189	76	111	21	0	208	1188
05:00 PM	9	63	44	0	116	6	74	2	0	82	3	33	19	0	55	14	32	4	0	50	303
05:15 PM	9	68	53	1	131	4	79	4	0	87	1	45	8	0	54	11	17	4	0	32	304
05:30 PM	5	85	69	0	159	4	65	0	1	70	3	41	17	0	61	24	24	5	0	53	343
05:45 PM	10	94	48	2	154	2	69	4	0	75	2	35	11	0	48	19	15	2	0	36	313
Total	33	310	214	3	560	16	287	10	1	314	9	154	55	0	218	68	88	15	0	171	1263
Grand Total	119	1080	707	6	1912	54	1040	76	3	1173	31	503	132	1	667	285	429	58	0	772	4524
Apprch %	6.2	56.5	37	0.3		4.6	88.7	6.5	0.3		4.6	75.4	19.8	0.1		36.9	55.6	7.5	0		
Total %	2.6	23.9	15.6	0.1	42.3	1.2	23	1.7	0.1	25.9	0.7	11.1	2.9	0	14.7	6.3	9.5	1.3	0	17.1	
Cars	116	1048	659	5	1828	54	1012	75	3	1144	31	501	130	1	663	251	406	58	0	715	4350
% Cars	97.5	97	93.2	83.3	95.6	100	97.3	98.7	100	97.5	100	99.6	98.5	100	99.4	88.1	94.6	100	0	92.6	96.2
Trucks	3	31	47	1	82	0	27	0	0	27	0	1	2	0	3	34	5	0	0	39	151
% Trucks	2.5	2.9	6.6	16.7	4.3	0	2.6	0	0	2.3	0	0.2	1.5	0	0.4	11.9	1.2	0	0	5.1	3.3
School Buses	0	1	1	0	2	0	1	1	0	2	0	1	0	0	1	0	18	0	0	18	23
% School Buses	0	0.1	0.1	0	0.1	0	0.1	1.3	0	0.2	0	0.2	0	0	0.1	0	4.2	0	0	2.3	0.5

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other : S&S

File Name : 10147-03
Site Code : 01014703
Start Date : 11/17/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other : S&S

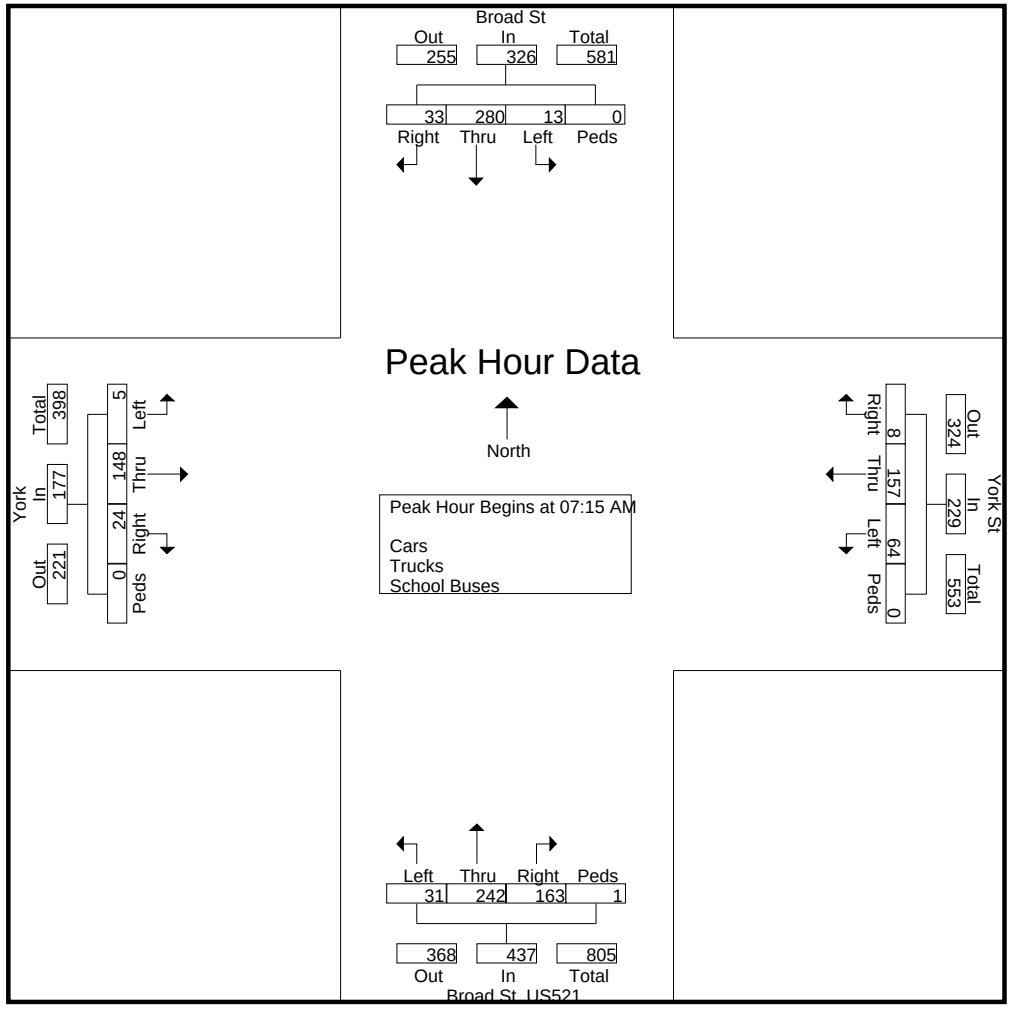
File Name : 10147-03
Site Code : 01014703
Start Date : 11/17/2010

	Broad St US521 Northbound					Broad St Southbound					York Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	57	**50**	0	112	**6**	80	4	0	90	0	27	5	0	32	12	30	**3**	0	45	279
07:30 AM	10	48	37	**1**	96	2	**85**	12	0	**99**	2	47	5	0	54	17	**53**	0	0	**70**	319
07:45 AM	**11**	**83**	41	0	**135**	4	64	**16**	0	84	**3**	**53**	5	0	**61**	11	50	2	0	63	**343**
08:00 AM	5	54	35	0	94	1	51	1	0	53	0	21	**9**	0	30	**24**	24	3	0	51	228
Total Volume	31	242	163	1	437	13	280	33	0	326	5	148	24	0	177	64	157	8	0	229	1169
% App. Total	7.1	55.4	37.3	0.2		4	85.9	10.1	0		2.8	83.6	13.6	0		27.9	68.6	3.5	0		
PHF	.705	.729	.815	.250	.809	.542	.824	.516	.000	.823	.417	.698	.667	.000	.725	.667	.741	.667	.000	.818	.852

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other : S&S

File Name : 10147-03
Site Code : 01014703
Start Date : 11/17/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other : S&S

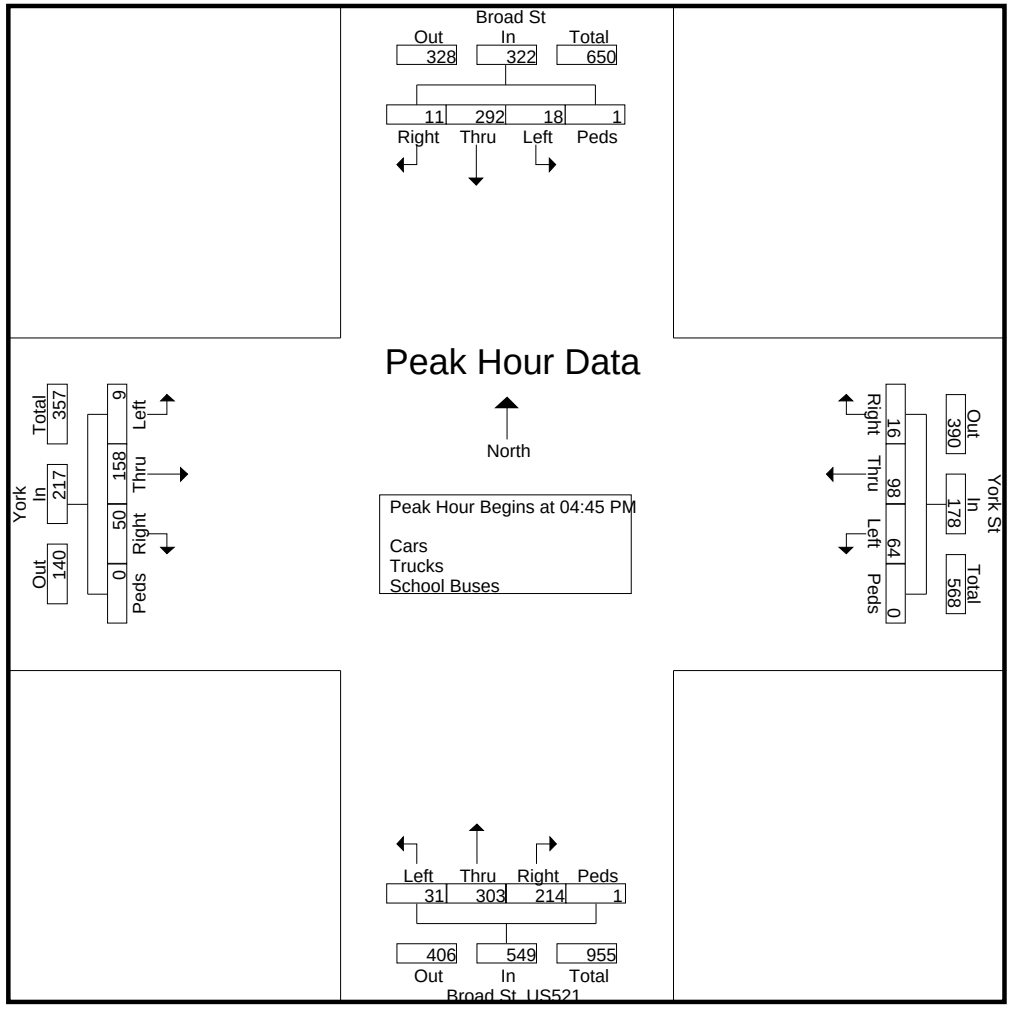
File Name : 10147-03
Site Code : 01014703
Start Date : 11/17/2010

	Broad St US521 Northbound					Broad St Southbound					York Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	8	**87**	48	0	143	4	74	**5**	0	83	2	39	6	0	47	15	25	3	0	43	316
05:00 PM	**9**	63	44	0	116	**6**	74	2	0	82	**3**	33	**19**	0	55	14	**32**	4	0	50	303
05:15 PM	9	68	53	**1**	131	4	**79**	4	0	**87**	1	**45**	8	0	54	11	17	4	0	32	304
05:30 PM	5	85	**69**	0	**159**	4	65	0	**1**	70	3	41	17	0	**61**	**24**	24	**5**	0	**53**	**343**
Total Volume	31	303	214	1	549	18	292	11	1	322	9	158	50	0	217	64	98	16	0	178	1266
% App. Total	5.6	55.2	39	0.2		5.6	90.7	3.4	0.3		4.1	72.8	23	0		36	55.1	9	0		
PHF	.861	.871	.775	.250	.863	.750	.924	.550	.250	.925	.750	.878	.658	.000	.889	.667	.766	.800	.000	.840	.923

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other : S&S

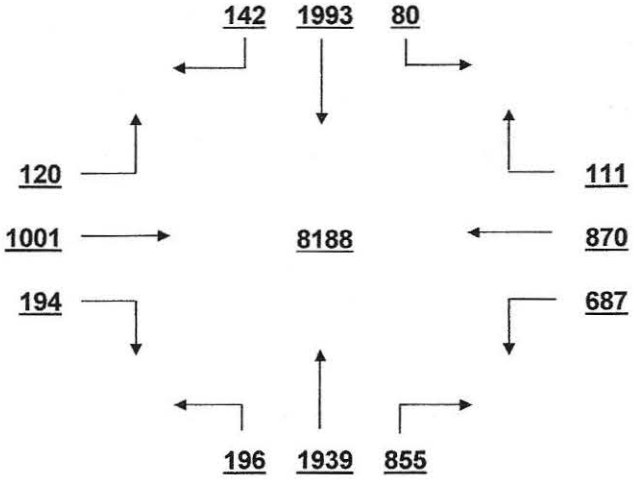
File Name : 10147-03
Site Code : 01014703
Start Date : 11/17/2010
Page No : 6



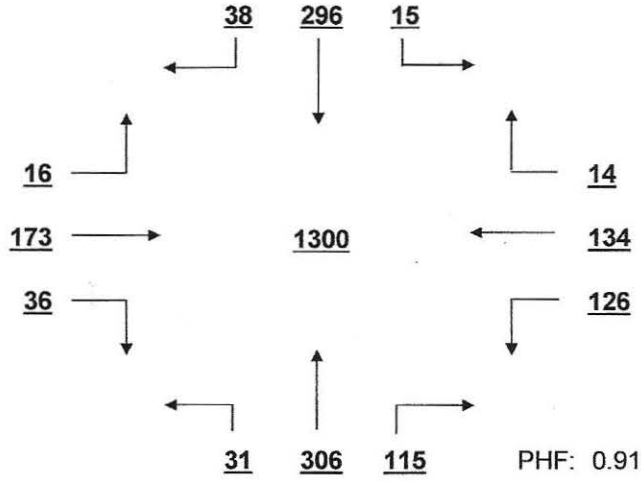
TOTAL AND PEAK HOUR VOLUME DIAGRAMS

BROAD ST. AT YORK WEEKDAY Date: 8/26/2010

8.0 HOUR TOTAL VOLUME
FROM 7:00 TO 18:00

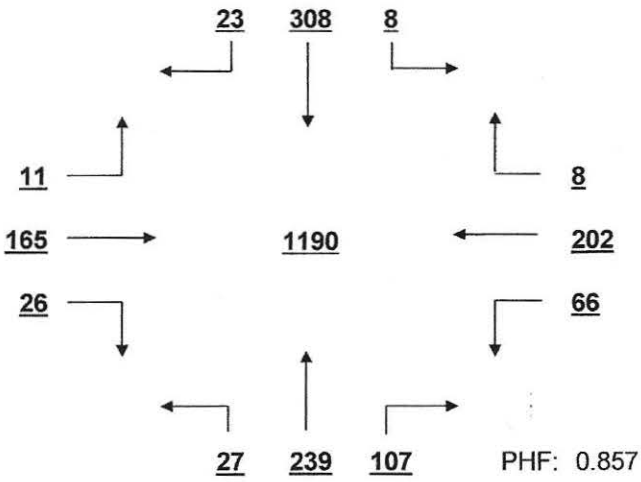


OVERALL PEAK HOUR VOLUME
FROM 14:45 TO 15:45



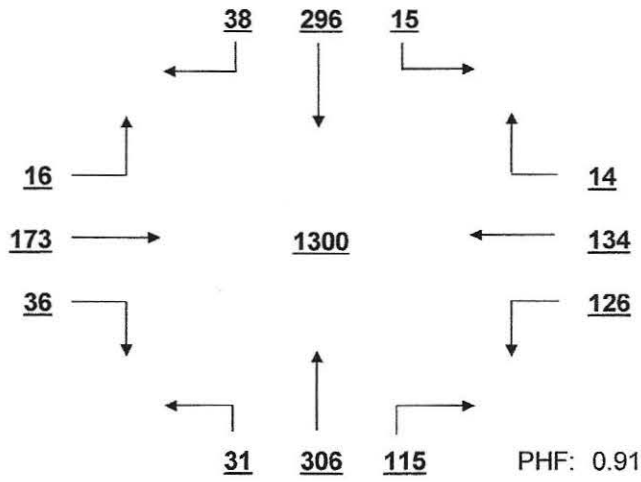
PHF: 0.913

AM PEAK HOUR VOLUME (0:00-10:45)
FROM 7:15 TO 8:15



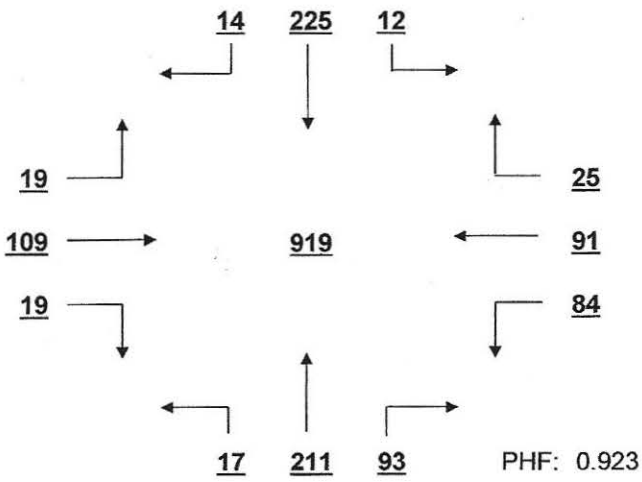
PHF: 0.857

PM PEAK HOUR VOLUME (14:15-23:45)
FROM 14:45 TO 15:45



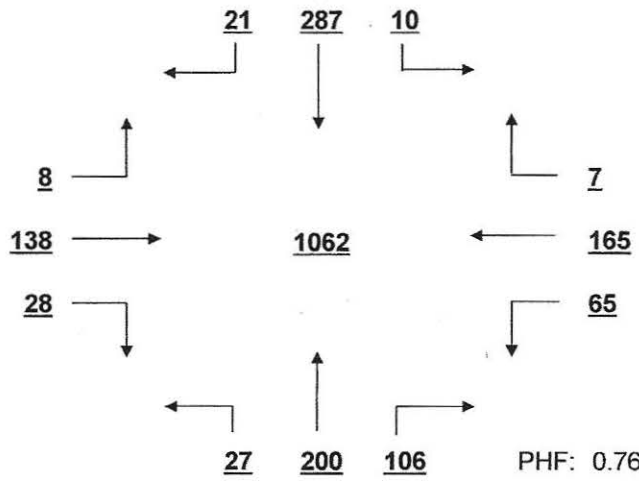
PHF: 0.913

MID-DAY PEAK HOUR VOLUME (11:00-14:00)
FROM 11:15 TO 12:15



PHF: 0.923

OTHER HOUR VOLUME
FROM 7:00 TO 8:00



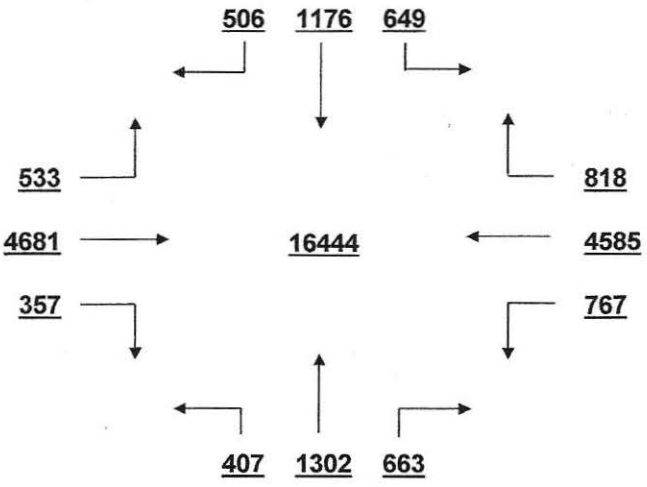
PHF: 0.765

TOTAL AND PEAK HOUR VOLUME DIAGRAMS

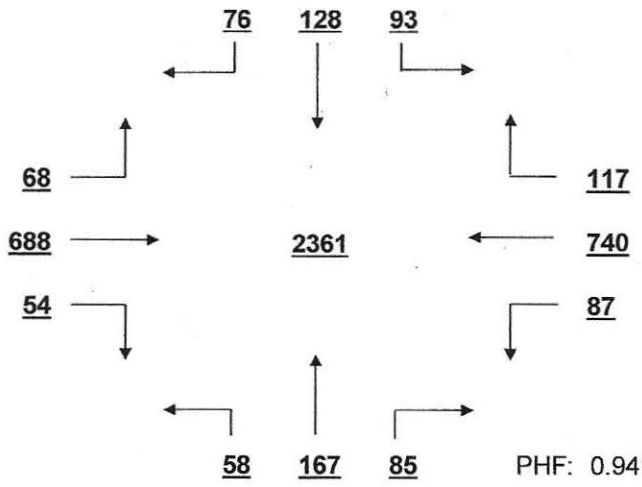
US-1 AT BROAD WEEKDAY

Date: 8/24/2010

8.0 HOUR TOTAL VOLUME
FROM 7:00 TO 18:00

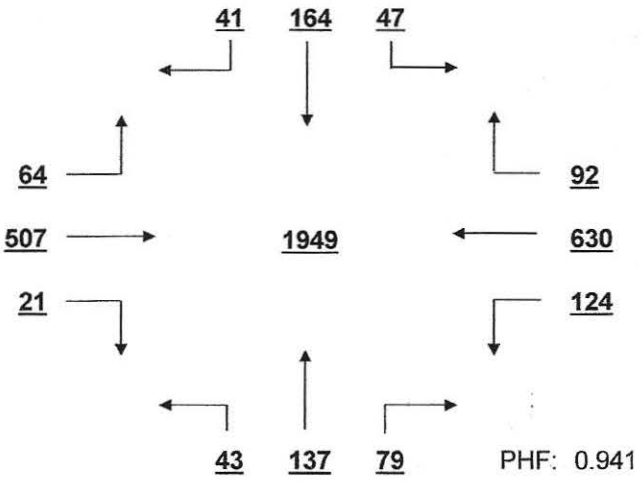


OVERALL PEAK HOUR VOLUME
FROM 15:00 TO 16:00



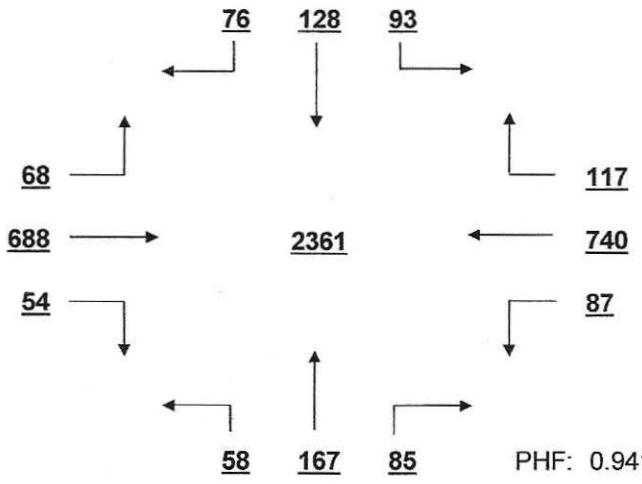
PHF: 0.941

AM PEAK HOUR VOLUME (0:00-10:45)
FROM 7:30 TO 8:30



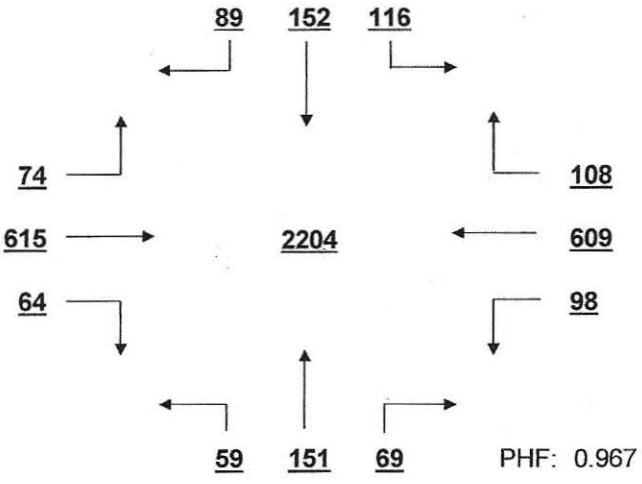
PHF: 0.941

PM PEAK HOUR VOLUME (14:15-23:45)
FROM 15:00 TO 16:00



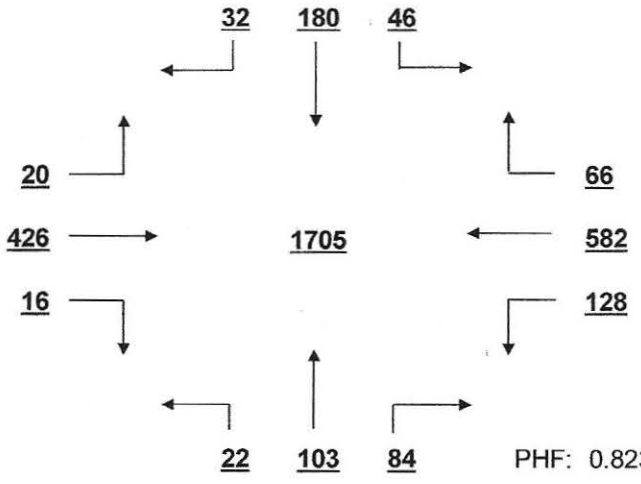
PHF: 0.941

MID-DAY PEAK HOUR VOLUME (11:00-14:00)
FROM 12:00 TO 13:00



PHF: 0.967

OTHER HOUR VOLUME
FROM 7:00 TO 8:00



PHF: 0.823

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-11
Site Code : 01014711
Start Date : 12/2/2010

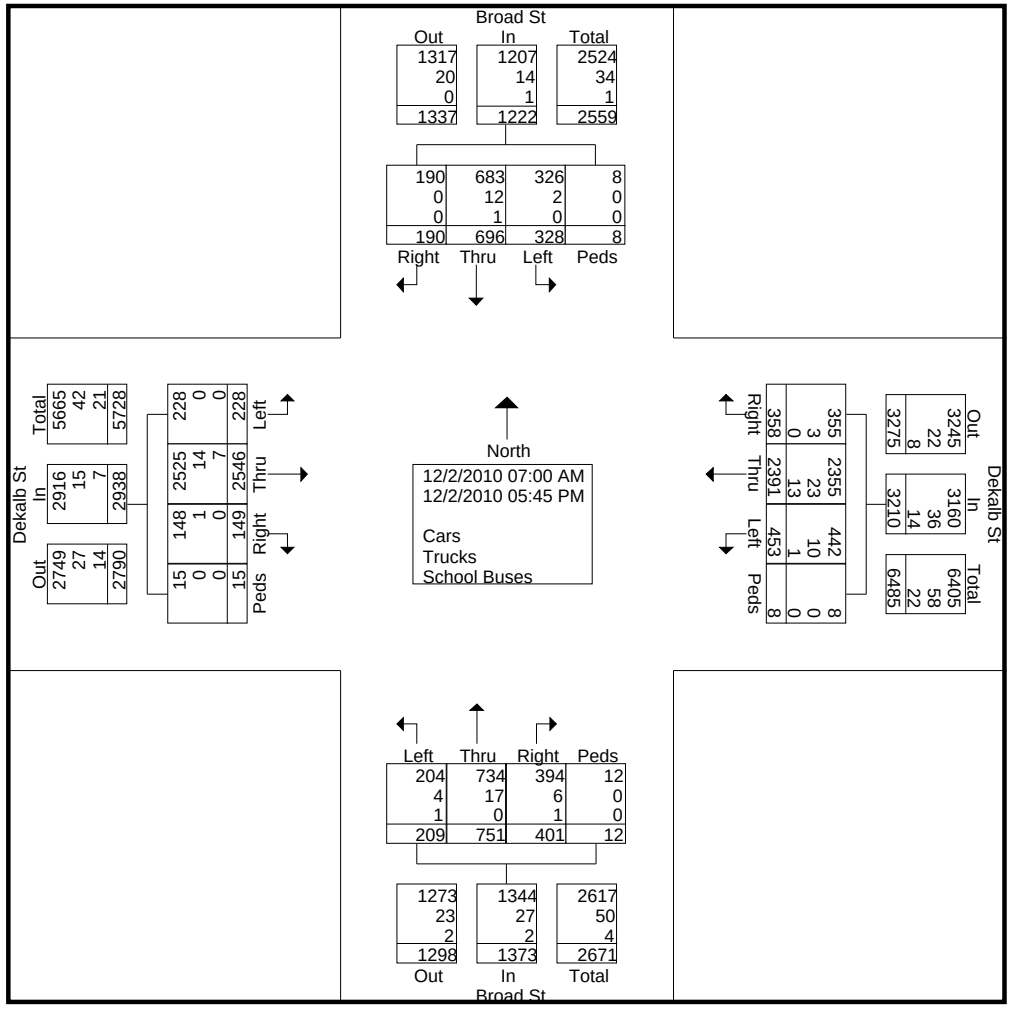
Groups Printed- Cars - Trucks - School Buses

	Broad St Northbound					Broad St Southbound					Dekalb St Eastbound					Dekalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	5	18	18	0	41	13	45	3	1	62	1	79	0	1	81	28	75	7	0	110	294
07:15 AM	8	22	20	0	50	15	36	8	0	59	2	124	6	0	132	42	153	16	0	211	452
07:30 AM	10	25	19	0	54	12	40	10	0	62	6	117	6	0	129	41	191	17	0	249	494
07:45 AM	6	36	21	0	63	8	40	9	0	57	20	120	6	2	148	36	215	25	0	276	544
Total	29	101	78	0	208	48	161	30	1	240	29	440	18	3	490	147	634	65	0	846	1784
08:00 AM	15	39	20	0	74	20	31	8	0	59	14	135	3	1	153	17	131	17	0	165	451
08:15 AM	14	33	14	0	61	14	34	6	1	55	16	126	7	0	149	14	113	20	0	147	412
08:30 AM	11	39	19	0	69	14	32	11	0	57	17	106	10	0	133	10	115	15	0	140	399
08:45 AM	12	42	24	0	78	19	36	5	1	61	17	108	6	1	132	22	103	24	1	150	421
Total	52	153	77	0	282	67	133	30	2	232	64	475	26	2	567	63	462	76	1	602	1683
*** BREAK ***																					
04:00 PM	16	64	25	3	108	33	55	20	1	109	18	181	8	3	210	27	147	30	0	204	631
04:15 PM	18	48	29	0	95	18	52	13	0	83	14	221	14	1	250	24	170	31	0	225	653
04:30 PM	11	57	29	3	100	22	44	20	0	86	16	213	15	0	244	28	157	30	2	217	647
04:45 PM	20	74	35	1	130	23	37	17	3	80	23	208	16	0	247	35	155	27	1	218	675
Total	65	243	118	7	433	96	188	70	4	358	71	823	53	4	951	114	629	118	3	864	2606
05:00 PM	13	77	34	1	125	33	77	29	0	139	21	208	10	4	243	39	185	32	1	257	764
05:15 PM	21	53	31	1	106	30	42	12	1	85	14	205	16	2	237	33	154	27	1	215	643
05:30 PM	20	72	33	2	127	29	55	10	0	94	15	206	15	0	236	27	178	19	2	226	683
05:45 PM	9	52	30	1	92	25	40	9	0	74	14	189	11	0	214	30	149	21	0	200	580
Total	63	254	128	5	450	117	214	60	1	392	64	808	52	6	930	129	666	99	4	898	2670
Grand Total	209	751	401	12	1373	328	696	190	8	1222	228	2546	149	15	2938	453	2391	358	8	3210	8743
Apprch %	15.2	54.7	29.2	0.9		26.8	57	15.5	0.7		7.8	86.7	5.1	0.5		14.1	74.5	11.2	0.2		
Total %	2.4	8.6	4.6	0.1	15.7	3.8	8	2.2	0.1	14	2.6	29.1	1.7	0.2	33.6	5.2	27.3	4.1	0.1	36.7	
Cars	204	734	394	12	1344	326	683	190	8	1207	228	2525	148	15	2916	442	2355	355	8	3160	8627
% Cars	97.6	97.7	98.3	100	97.9	99.4	98.1	100	100	98.8	100	99.2	99.3	100	99.3	97.6	98.5	99.2	100	98.4	98.7
Trucks	4	17	6	0	27	2	12	0	0	14	0	14	1	0	15	10	23	3	0	36	92
% Trucks	1.9	2.3	1.5	0	2	0.6	1.7	0	0	1.1	0	0.5	0.7	0	0.5	2.2	1	0.8	0	1.1	1.1
School Buses	1	0	1	0	2	0	1	0	0	1	0	7	0	0	7	1	13	0	0	14	24
% School Buses	0.5	0	0.2	0	0.1	0	0.1	0	0	0.1	0	0.3	0	0	0.2	0.2	0.5	0	0	0.4	0.3

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-11
Site Code : 01014711
Start Date : 12/2/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

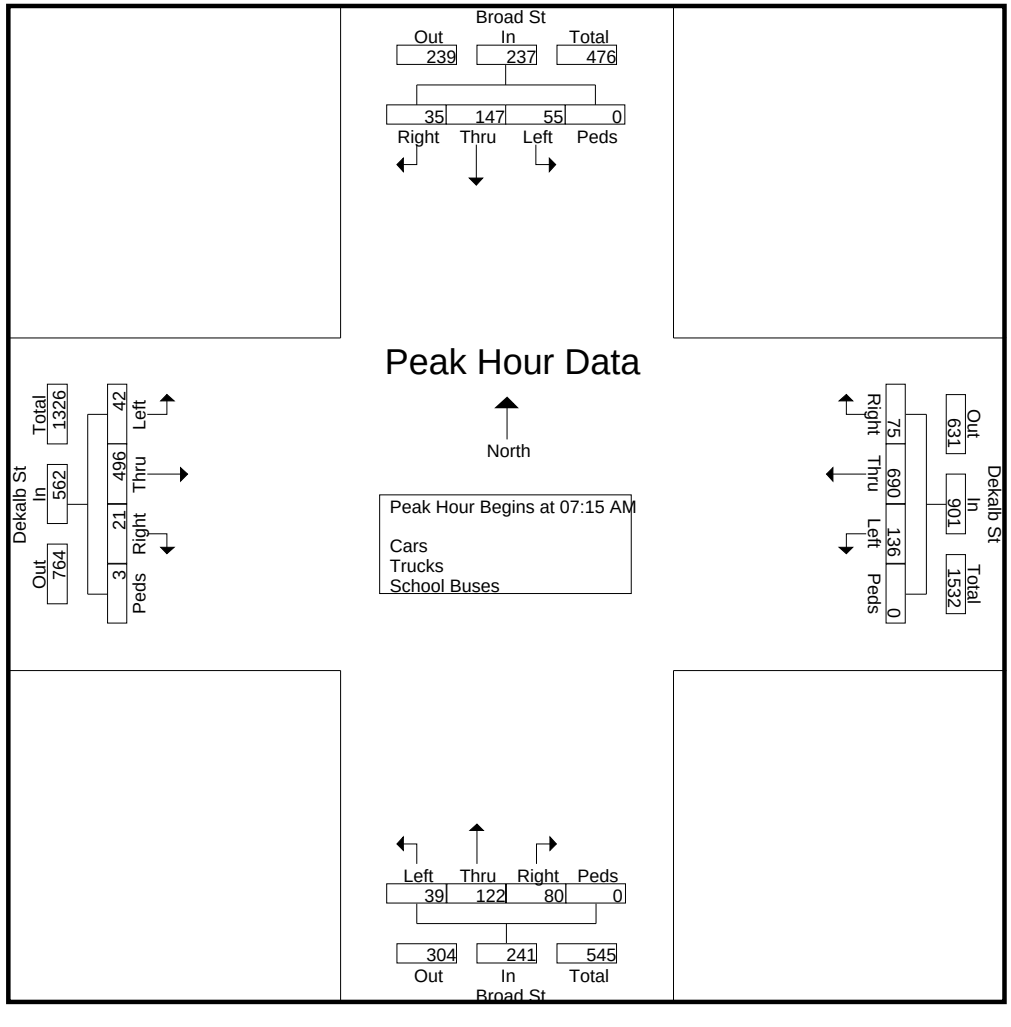
File Name : 10147-11
Site Code : 01014711
Start Date : 12/2/2010
Page No : 3

	Broad St Northbound					Broad St Southbound					Dekalb St Eastbound					Dekalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	8	22	20	0	50	15	36	8	0	59	2	124	**6**	0	132	**42**	153	16	0	211	452
07:30 AM	10	25	19	0	54	12	**40**	**10**	0	**62**	6	117	6	0	129	41	191	17	0	249	494
07:45 AM	6	36	**21**	0	63	8	40	9	0	57	**20**	120	6	**2**	148	36	**215**	**25**	0	**276**	**544**
08:00 AM	**15**	**39**	20	0	**74**	**20**	31	8	0	59	14	**135**	3	1	**153**	17	131	17	0	165	451
Total Volume	39	122	80	0	241	55	147	35	0	237	42	496	21	3	562	136	690	75	0	901	1941
% App. Total	16.2	50.6	33.2	0		23.2	62	14.8	0		7.5	88.3	3.7	0.5		15.1	76.6	8.3	0		
PHF	.650	.782	.952	.000	.814	.688	.919	.875	.000	.956	.525	.919	.875	.375	.918	.810	.802	.750	.000	.816	.892

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-11
Site Code : 01014711
Start Date : 12/2/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

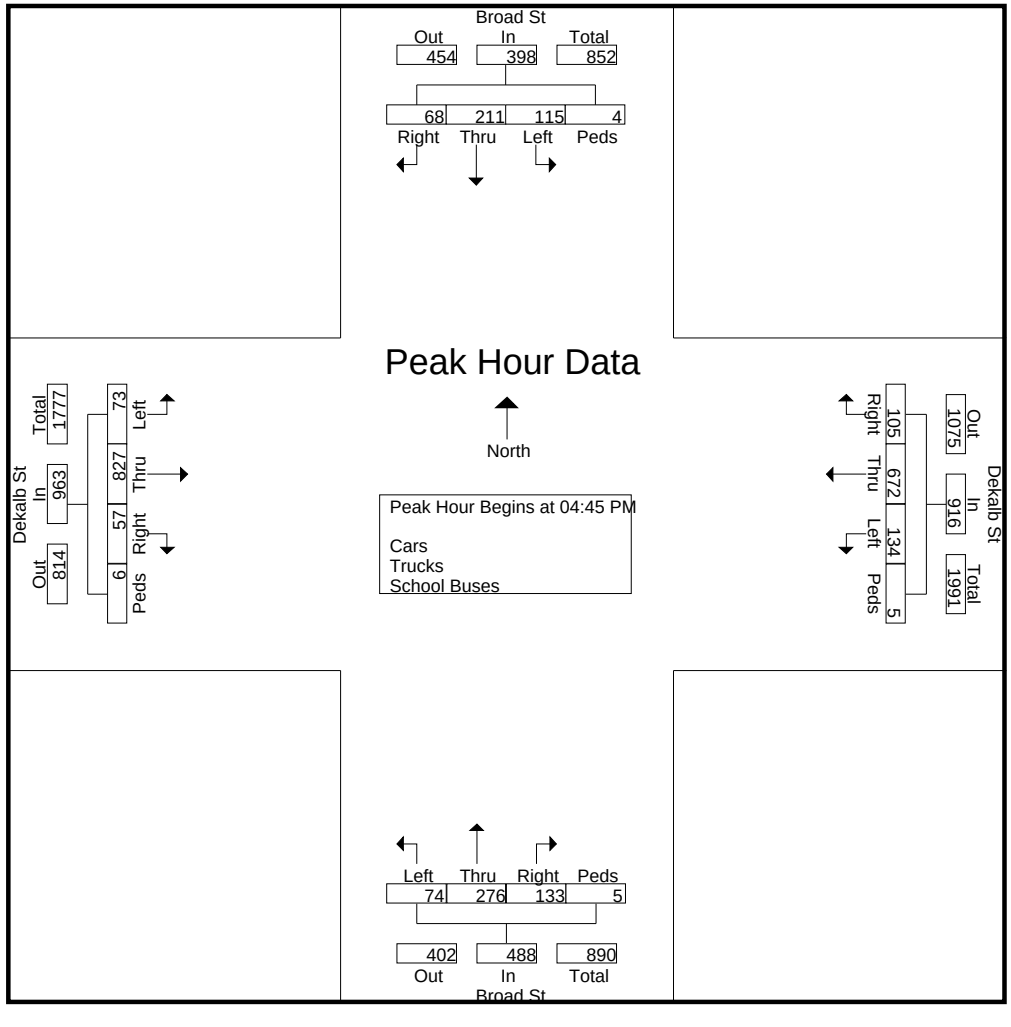
File Name : 10147-11
Site Code : 01014711
Start Date : 12/2/2010

	Broad St Northbound					Broad St Southbound					Dekalb St Eastbound					Dekalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	20	74	**35**	1	**130**	23	37	17	**3**	80	**23**	**208**	**16**	0	**247**	35	155	27	1	218	675
05:00 PM	13	**77**	34	1	125	**33**	**77**	**29**	0	**139**	21	208	10	**4**	243	**39**	**185**	**32**	1	**257**	**764**
05:15 PM	**21**	53	31	1	106	30	42	12	1	85	14	205	16	2	237	33	154	27	1	215	643
05:30 PM	20	72	33	**2**	127	29	55	10	0	94	15	206	15	0	236	27	178	19	**2**	226	683
Total Volume	74	276	133	5	488	115	211	68	4	398	73	827	57	6	963	134	672	105	5	916	2765
% App. Total	15.2	56.6	27.3	1		28.9	53	17.1	1		7.6	85.9	5.9	0.6		14.6	73.4	11.5	0.5		
PHF	.881	.896	.950	.625	.938	.871	.685	.586	.333	.716	.793	.994	.891	.375	.975	.859	.908	.820	.625	.891	.905

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-11
Site Code : 01014711
Start Date : 12/2/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-01
Site Code : 01014701
Start Date : 11/16/2010
Page No : 1

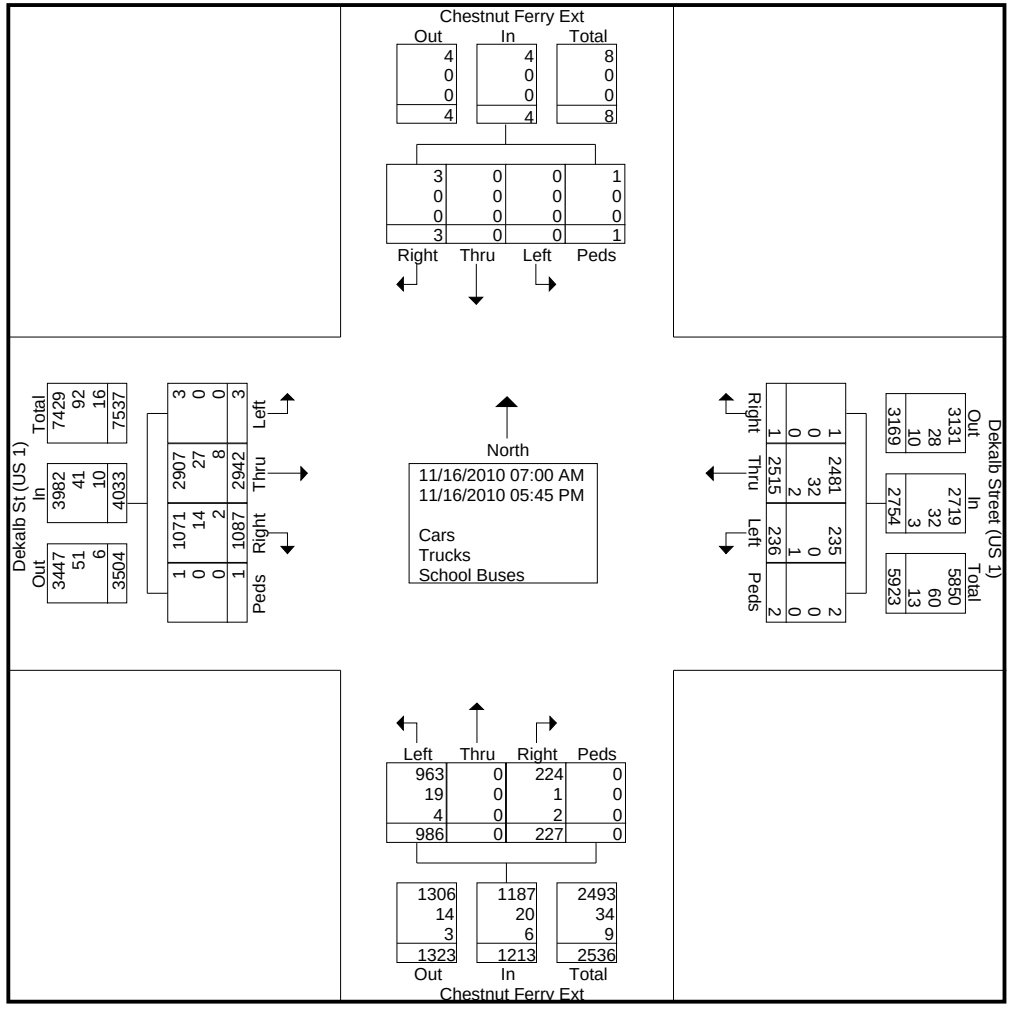
Groups Printed- Cars - Trucks - School Buses

	Chestnut Ferry Ext Northbound					Chestnut Ferry Ext Southbound					Dekalb St (US 1) Eastbound					Dekalb Street (US 1) Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	40	0	8	0	48	0	0	0	0	0	0	130	71	0	201	5	76	0	0	81	330
07:15 AM	54	0	11	0	65	0	0	0	0	0	0	116	60	0	176	9	132	0	0	141	382
07:30 AM	50	0	9	0	59	0	0	1	0	1	1	143	74	0	218	29	148	1	1	179	457
07:45 AM	79	0	10	0	89	0	0	0	0	0	0	155	61	0	216	18	164	0	0	182	487
Total	223	0	38	0	261	0	0	1	0	1	1	544	266	0	811	61	520	1	1	583	1656
08:00 AM	43	0	10	0	53	0	0	0	0	0	0	170	56	0	226	4	116	0	0	120	399
08:15 AM	57	0	13	0	70	0	0	0	0	0	0	173	47	0	220	8	140	0	0	148	438
08:30 AM	50	0	17	0	67	0	0	0	0	0	0	144	37	0	181	9	104	0	1	114	362
08:45 AM	54	0	4	0	58	0	0	0	0	0	0	152	32	0	184	3	111	0	0	114	356
Total	204	0	44	0	248	0	0	0	0	0	0	639	172	0	811	24	471	0	1	496	1555
*** BREAK ***																					
04:00 PM	71	0	22	0	93	0	0	0	1	1	0	208	68	0	276	19	190	0	0	209	579
04:15 PM	67	0	9	0	76	0	0	0	0	0	0	239	77	0	316	17	222	0	0	239	631
04:30 PM	53	0	18	0	71	0	0	0	0	0	0	234	86	0	320	15	206	0	0	221	612
04:45 PM	76	0	14	0	90	0	0	0	0	0	0	205	82	0	287	19	193	0	0	212	589
Total	267	0	63	0	330	0	0	0	1	1	0	886	313	0	1199	70	811	0	0	881	2411
05:00 PM	83	0	22	0	105	0	0	0	0	0	1	216	89	0	306	22	272	0	0	294	705
05:15 PM	70	0	22	0	92	0	0	2	0	2	1	233	79	1	314	19	176	0	0	195	603
05:30 PM	71	0	18	0	89	0	0	0	0	0	0	221	87	0	308	23	147	0	0	170	567
05:45 PM	68	0	20	0	88	0	0	0	0	0	0	203	81	0	284	17	118	0	0	135	507
Total	292	0	82	0	374	0	0	2	0	2	2	873	336	1	1212	81	713	0	0	794	2382
Grand Total	986	0	227	0	1213	0	0	3	1	4	3	2942	1087	1	4033	236	2515	1	2	2754	8004
Apprch %	81.3	0	18.7	0		0	0	75	25		0.1	72.9	27	0		8.6	91.3	0	0.1		
Total %	12.3	0	2.8	0	15.2	0	0	0	0	0	0	36.8	13.6	0	50.4	2.9	31.4	0	0	34.4	
Cars	963	0	224	0	1187	0	0	3	1	4	3	2907	1071	1	3982	235	2481	1	2	2719	7892
% Cars	97.7	0	98.7	0	97.9	0	0	100	100	100	100	98.8	98.5	100	98.7	99.6	98.6	100	100	98.7	98.6
Trucks	19	0	1	0	20	0	0	0	0	0	0	27	14	0	41	0	32	0	0	32	93
% Trucks	1.9	0	0.4	0	1.6	0	0	0	0	0	0	0.9	1.3	0	1	0	1.3	0	0	1.2	1.2
School Buses	4	0	2	0	6	0	0	0	0	0	0	8	2	0	10	1	2	0	0	3	19
% School Buses	0.4	0	0.9	0	0.5	0	0	0	0	0	0	0.3	0.2	0	0.2	0.4	0.1	0	0	0.1	0.2

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-01
Site Code : 01014701
Start Date : 11/16/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

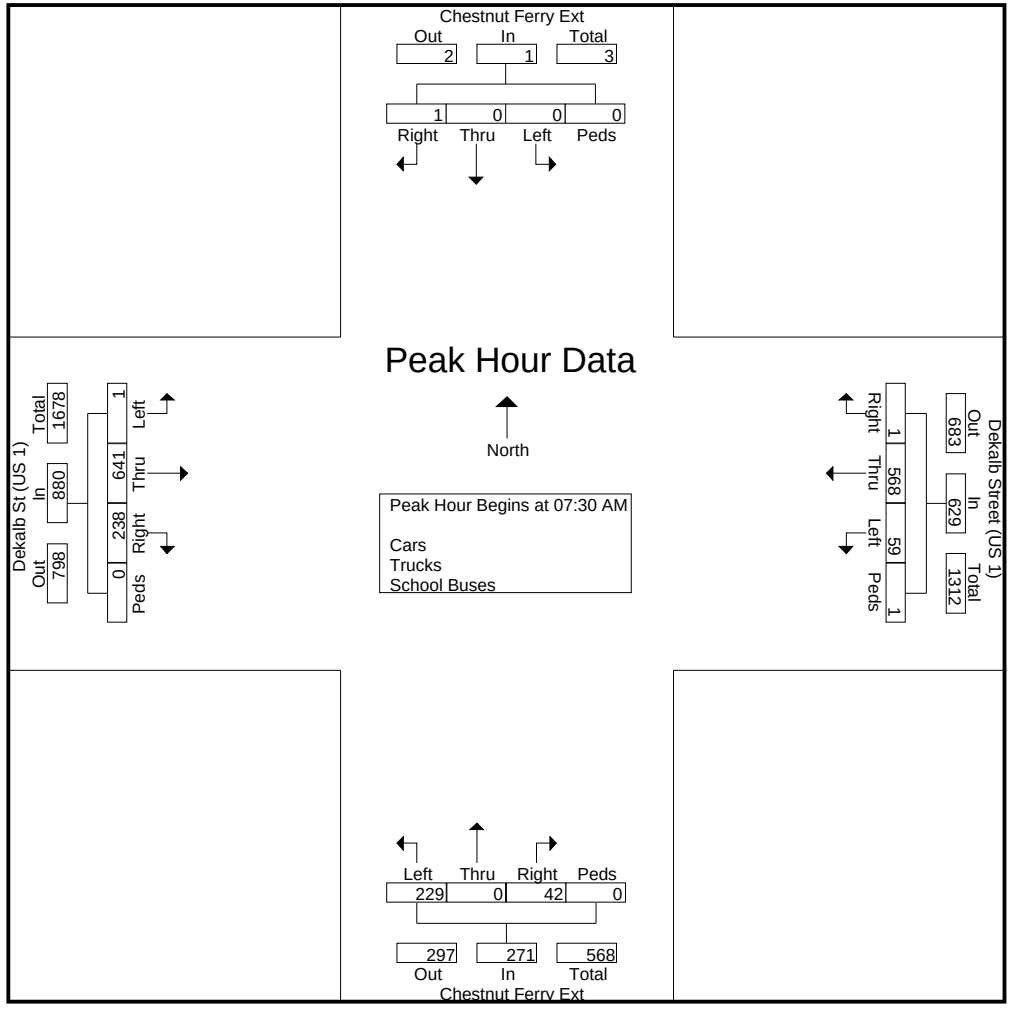
File Name : 10147-01
Site Code : 01014701
Start Date : 11/16/2010

	Chestnut Ferry Ext Northbound					Chestnut Ferry Ext Southbound					Dekalb St (US 1) Eastbound					Dekalb Street (US 1) Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	50	0	9	0	59	0	0	**1**	0	**1**	**1**	143	**74**	0	218	**29**	148	**1**	**1**	179	457
07:45 AM	**79**	0	10	0	**89**	0	0	0	0	0	0	155	61	0	216	18	**164**	0	0	**182**	**487**
08:00 AM	43	0	10	0	53	0	0	0	0	0	0	170	56	0	**226**	4	116	0	0	120	399
08:15 AM	57	0	**13**	0	70	0	0	0	0	0	0	**173**	47	0	220	8	140	0	0	148	438
Total Volume	229	0	42	0	271	0	0	1	0	1	1	641	238	0	880	59	568	1	1	629	1781
% App. Total	84.5	0	15.5	0		0	0	100	0		0.1	72.8	27	0		9.4	90.3	0.2	0.2		
PHF	.725	.000	.808	.000	.761	.000	.000	.250	.000	.250	.250	.926	.804	.000	.973	.509	.866	.250	.250	.864	.914

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-01
Site Code : 01014701
Start Date : 11/16/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

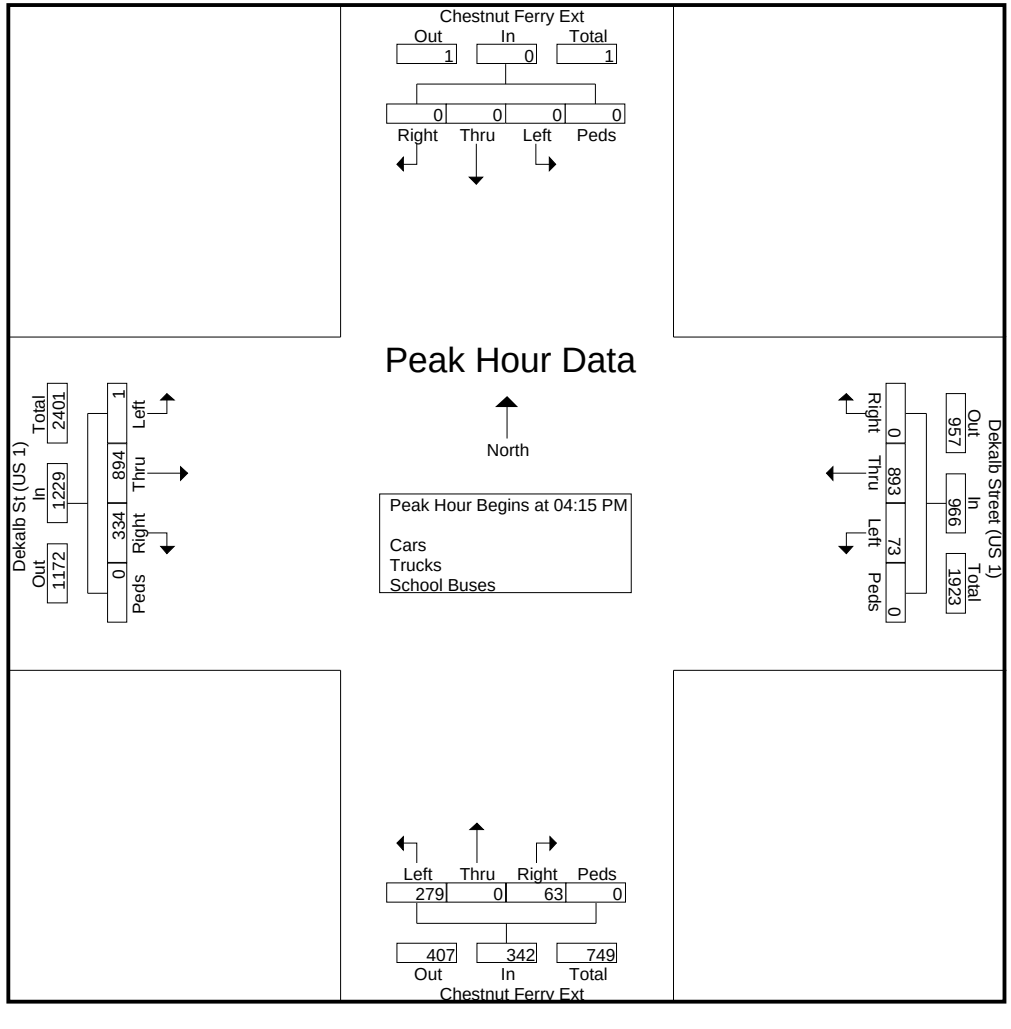
File Name : 10147-01
Site Code : 01014701
Start Date : 11/16/2010

	Chestnut Ferry Ext Northbound					Chestnut Ferry Ext Southbound					Dekalb St (US 1) Eastbound					Dekalb Street (US 1) Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	67	0	9	0	76	0	0	0	0	0	0	**239**	77	0	316	17	222	0	0	239	631
04:30 PM	53	0	18	0	71	0	0	0	0	0	0	234	86	0	**320**	15	206	0	0	221	612
04:45 PM	76	0	14	0	90	0	0	0	0	0	0	205	82	0	287	19	193	0	0	212	589
05:00 PM	**83**	0	**22**	0	**105**	0	0	0	0	0	**1**	216	**89**	0	306	**22**	**272**	0	0	**294**	**705**
Total Volume	279	0	63	0	342	0	0	0	0	0	1	894	334	0	1229	73	893	0	0	966	2537
% App. Total	81.6	0	18.4	0		0	0	0	0		0.1	72.7	27.2	0		7.6	92.4	0	0		
PHF	.840	.000	.716	.000	.814	.000	.000	.000	.000	.000	.250	.935	.938	.000	.960	.830	.821	.000	.000	.821	.900

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-01
Site Code : 01014701
Start Date : 11/16/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-07
Site Code : 01014707
Start Date : 12/1/2010
Page No : 1

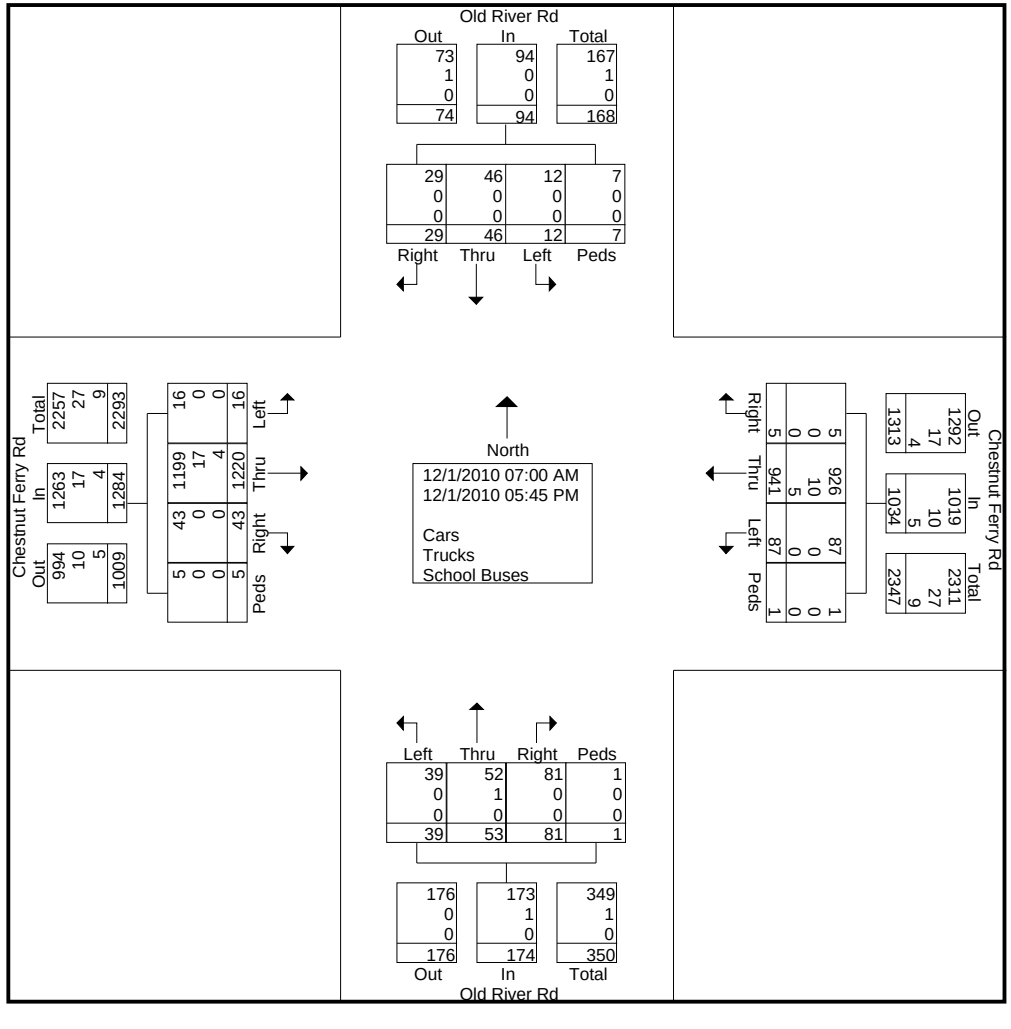
Groups Printed- Cars - Trucks - School Buses

	Old River Rd Northbound					Old River Rd Southbound					Chestnut Ferry Rd Eastbound					Chestnut Ferry Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	3	4	0	7	1	0	1	0	2	0	72	2	0	74	3	39	0	0	42	125
07:15 AM	2	3	3	0	8	1	1	0	0	2	0	68	1	0	69	2	41	0	0	43	122
07:30 AM	4	3	3	0	10	0	2	0	0	2	0	80	1	0	81	2	58	0	0	60	153
07:45 AM	2	2	7	0	11	2	3	2	2	9	1	87	3	3	94	3	64	0	0	67	181
Total	8	11	17	0	36	4	6	3	2	15	1	307	7	3	318	10	202	0	0	212	581
08:00 AM	3	1	1	0	5	0	2	2	0	4	1	59	2	0	62	4	48	0	0	52	123
08:15 AM	1	2	3	0	6	1	3	3	0	7	1	42	1	0	44	1	39	0	0	40	97
08:30 AM	2	1	1	0	4	1	1	0	0	2	0	38	3	0	41	3	44	0	1	48	95
08:45 AM	1	2	1	0	4	0	3	2	0	5	0	44	0	0	44	2	47	0	0	49	102
Total	7	6	6	0	19	2	9	7	0	18	2	183	6	0	191	10	178	0	1	189	417
*** BREAK ***																					
04:00 PM	5	5	5	0	15	2	4	4	0	10	1	97	3	2	103	10	63	1	0	74	202
04:15 PM	4	5	9	1	19	0	4	5	0	9	1	90	2	0	93	4	75	2	0	81	202
04:30 PM	3	3	8	0	14	1	5	1	1	8	1	74	5	0	80	8	85	0	0	93	195
04:45 PM	3	1	4	0	8	0	3	0	0	3	3	72	3	0	78	6	60	1	0	67	156
Total	15	14	26	1	56	3	16	10	1	30	6	333	13	2	354	28	283	4	0	315	755
05:00 PM	1	11	10	0	22	1	4	1	2	8	2	99	4	0	105	9	83	0	0	92	227
05:15 PM	0	1	12	0	13	1	6	3	1	11	3	113	5	0	121	8	62	0	0	70	215
05:30 PM	4	5	7	0	16	0	1	2	1	4	0	88	4	0	92	13	76	0	0	89	201
05:45 PM	4	5	3	0	12	1	4	3	0	8	2	97	4	0	103	9	57	1	0	67	190
Total	9	22	32	0	63	3	15	9	4	31	7	397	17	0	421	39	278	1	0	318	833
Grand Total	39	53	81	1	174	12	46	29	7	94	16	1220	43	5	1284	87	941	5	1	1034	2586
Apprch %	22.4	30.5	46.6	0.6		12.8	48.9	30.9	7.4		1.2	95	3.3	0.4		8.4	91	0.5	0.1		
Total %	1.5	2	3.1	0	6.7	0.5	1.8	1.1	0.3	3.6	0.6	47.2	1.7	0.2	49.7	3.4	36.4	0.2	0	40	
Cars	39	52	81	1	173	12	46	29	7	94	16	1199	43	5	1263	87	926	5	1	1019	2549
% Cars	100	98.1	100	100	99.4	100	100	100	100	100	100	98.3	100	100	98.4	100	98.4	100	100	98.5	98.6
Trucks	0	1	0	0	1	0	0	0	0	0	0	17	0	0	17	0	10	0	0	10	28
% Trucks	0	1.9	0	0	0.6	0	0	0	0	0	0	1.4	0	0	1.3	0	1.1	0	0	1	1.1
School Buses	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	5	0	0	5	9
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.3	0	0.5	0	0	0.5	0.3

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-07
Site Code : 01014707
Start Date : 12/1/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

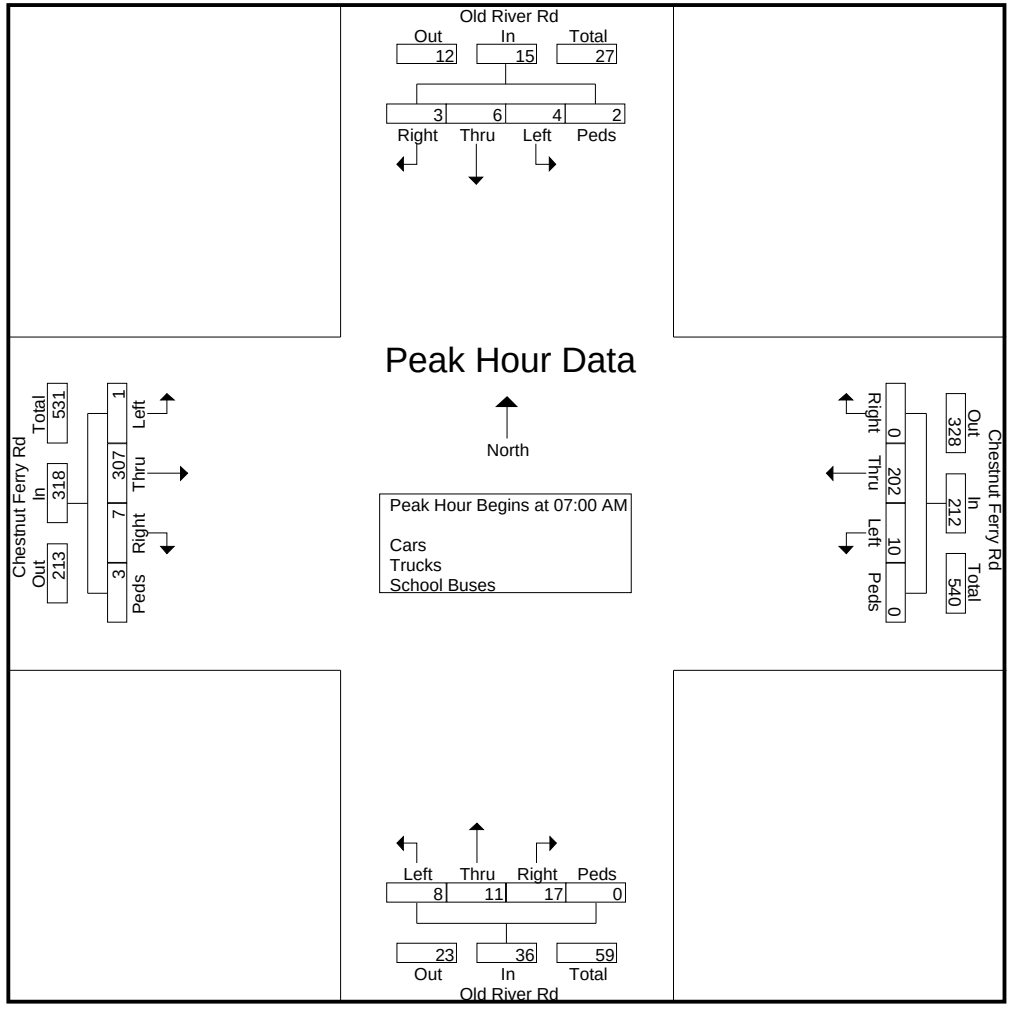
File Name : 10147-07
Site Code : 01014707
Start Date : 12/1/2010

	Old River Rd Northbound					Old River Rd Southbound					Chestnut Ferry Rd Eastbound					Chestnut Ferry Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	**3**	4	0	7	1	0	1	0	2	0	72	2	0	74	**3**	39	0	0	42	125
07:15 AM	2	3	3	0	8	1	1	0	0	2	0	68	1	0	69	2	41	0	0	43	122
07:30 AM	**4**	3	3	0	10	0	2	0	0	2	0	80	1	0	81	2	58	0	0	60	153
07:45 AM	2	2	**7**	0	**11**	**2**	**3**	**2**	**2**	**9**	**1**	**87**	**3**	**3**	**94**	3	**64**	0	0	**67**	**181**
Total Volume	8	11	17	0	36	4	6	3	2	15	1	307	7	3	318	10	202	0	0	212	581
% App. Total	22.2	30.6	47.2	0		26.7	40	20	13.3		0.3	96.5	2.2	0.9		4.7	95.3	0	0		
PHF	.500	.917	.607	.000	.818	.500	.500	.375	.250	.417	.250	.882	.583	.250	.846	.833	.789	.000	.000	.791	.802

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-07
Site Code : 01014707
Start Date : 12/1/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

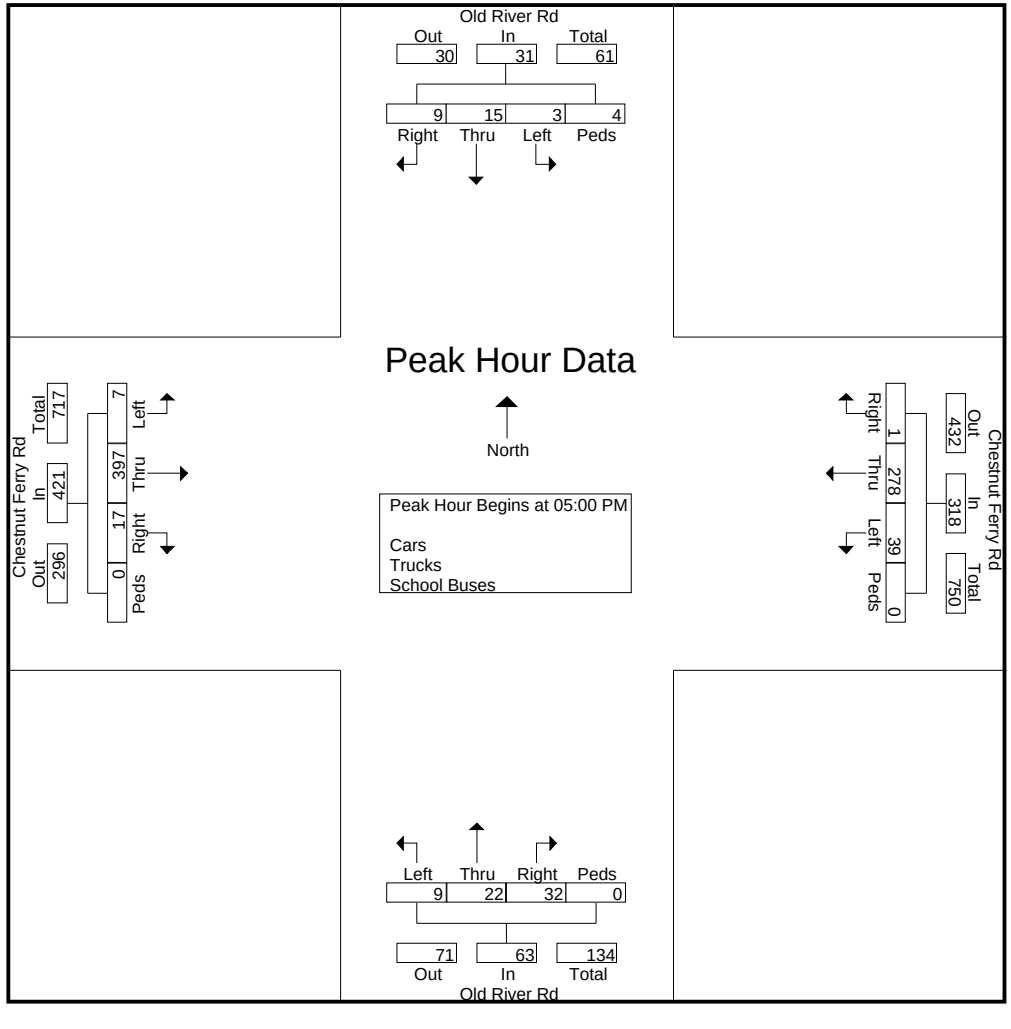
File Name : 10147-07
Site Code : 01014707
Start Date : 12/1/2010
Page No : 5

	Old River Rd Northbound					Old River Rd Southbound					Chestnut Ferry Rd Eastbound					Chestnut Ferry Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	**11**	10	0	**22**	**1**	4	1	**2**	8	2	99	4	0	105	9	**83**	0	0	**92**	**227**
05:15 PM	0	1	**12**	0	13	1	**6**	**3**	1	**11**	**3**	**113**	**5**	0	**121**	8	62	0	0	70	215
05:30 PM	**4**	5	7	0	16	0	1	2	1	4	0	88	4	0	92	**13**	76	0	0	89	201
05:45 PM	4	5	3	0	12	1	4	3	0	8	2	97	4	0	103	9	57	**1**	0	67	190
Total Volume	9	22	32	0	63	3	15	9	4	31	7	397	17	0	421	39	278	1	0	318	833
% App. Total	14.3	34.9	50.8	0		9.7	48.4	29	12.9		1.7	94.3	4	0		12.3	87.4	0.3	0		
PHF	.563	.500	.667	.000	.716	.750	.625	.750	.500	.705	.583	.878	.850	.000	.870	.750	.837	.250	.000	.864	.917

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-07
Site Code : 01014707
Start Date : 12/1/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010

Groups Printed- Cars - Truck and Busses - School Buses

	Ehrenclou Drive Northbound					Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	20	0	2	0	22	0	0	0	0	0	0	24	34	1	59	5	19	0	0	24	105
07:15 AM	33	0	5	0	38	0	0	0	0	0	0	31	65	6	102	20	21	0	0	41	181
07:30 AM	23	0	16	0	39	0	0	0	0	0	0	40	48	10	98	25	36	0	0	61	198
07:45 AM	51	0	20	0	71	0	0	0	0	0	0	56	44	6	106	14	48	0	0	62	239
Total	127	0	43	0	170	0	0	0	0	0	0	151	191	23	365	64	124	0	0	188	723
08:00 AM	20	0	8	0	28	0	0	0	0	0	0	15	29	0	44	14	20	0	0	34	106
08:15 AM	34	0	7	0	41	0	0	0	0	0	0	23	24	1	48	6	21	0	1	28	117
08:30 AM	37	0	15	0	52	0	0	0	0	0	0	23	29	0	52	8	19	0	0	27	131
08:45 AM	35	0	2	0	37	0	0	0	0	0	0	16	22	1	39	6	22	0	0	28	104
Total	126	0	32	0	158	0	0	0	0	0	0	77	104	2	183	34	82	0	1	117	458
*** BREAK ***																					
02:00 PM	33	0	5	0	38	0	0	0	0	0	0	25	31	0	56	10	27	0	0	37	131
02:15 PM	34	0	9	0	43	0	0	0	0	0	0	30	31	1	62	9	29	0	0	38	143
02:30 PM	40	0	7	0	47	0	0	0	0	0	0	29	37	1	67	7	26	0	0	33	147
02:45 PM	44	0	13	0	57	0	0	0	0	0	0	37	30	0	67	13	31	0	0	44	168
Total	151	0	34	0	185	0	0	0	0	0	0	121	129	2	252	39	113	0	0	152	589
03:00 PM	29	0	15	0	44	0	0	0	0	0	0	40	42	3	85	10	34	0	0	44	173
03:15 PM	32	0	27	0	59	0	0	0	0	0	0	49	42	16	107	16	51	0	0	67	233
03:30 PM	45	0	12	0	57	0	0	0	0	0	0	48	75	6	129	19	73	0	0	92	278
03:45 PM	34	0	19	0	53	0	0	0	0	0	0	50	71	3	124	28	70	0	0	98	275
Total	140	0	73	0	213	0	0	0	0	0	0	187	230	28	445	73	228	0	0	301	959
04:00 PM	49	0	16	0	65	0	0	0	0	0	0	46	47	5	98	22	43	0	0	65	228
04:15 PM	28	0	24	0	52	0	0	0	0	0	0	27	54	5	86	13	42	0	0	55	193
04:30 PM	38	0	9	0	47	0	0	0	0	0	0	58	47	1	106	6	41	0	0	47	200
04:45 PM	43	0	10	0	53	0	0	0	0	0	0	30	51	1	82	9	54	0	0	63	198
Total	158	0	59	0	217	0	0	0	0	0	0	161	199	12	372	50	180	0	0	230	819
05:00 PM	33	0	12	0	45	0	0	0	0	0	0	37	66	1	104	11	47	0	0	58	207
05:15 PM	58	0	10	0	68	0	0	0	1	1	0	48	55	1	104	14	32	0	0	46	219
05:30 PM	55	0	4	0	59	0	0	0	0	0	1	45	68	0	114	11	37	0	0	48	221
05:45 PM	58	0	12	0	70	0	0	0	0	0	0	37	48	0	85	19	37	0	0	56	211
Total	204	0	38	0	242	0	0	0	1	1	1	167	237	2	407	55	153	0	0	208	858
Grand Total	906	0	279	0	1185	0	0	0	1	1	1	864	1090	69	2024	315	880	0	1	1196	4406
Apprch %	76.5	0	23.5	0		0	0	0	100		0	42.7	53.9	3.4		26.3	73.6	0	0.1		
Total %	20.6	0	6.3	0	26.9	0	0	0	0	0	0	19.6	24.7	1.6	45.9	7.1	20	0	0	27.1	
Cars	877	0	245	0	1122	0	0	0	1	1	1	849	1068	69	1987	279	866	0	1	1146	4256
% Cars	96.8	0	87.8	0	94.7	0	0	0	100	100	100	98.3	98	100	98.2	88.6	98.4	0	100	95.8	96.6

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010

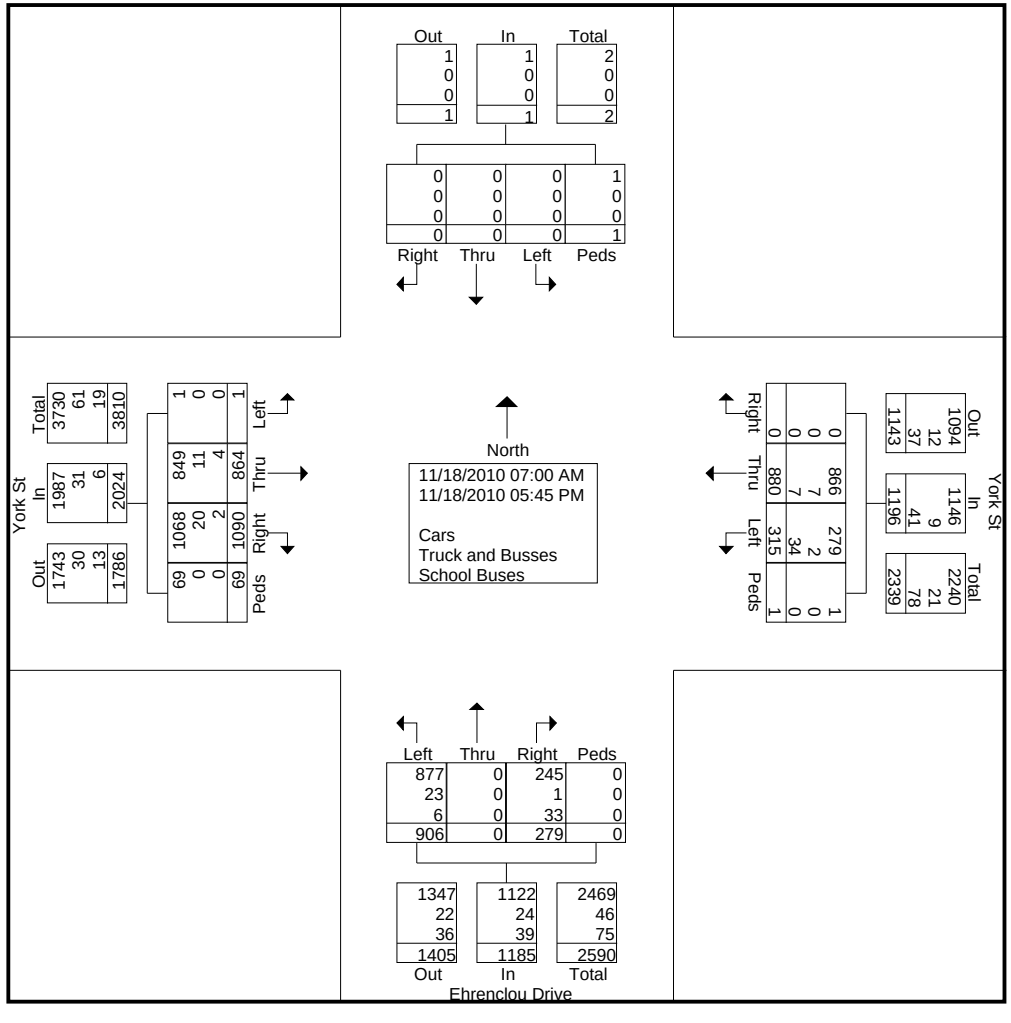
Groups Printed- Cars - Truck and Busses - School Buses

	Ehrenclou Drive Northbound					Southbound					York St Eastbound					York St Westbound					
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Truck and Busses	23	0	1	0	24	0	0	0	0	0	0	11	20	0	31	2	7	0	0	9	64
% Truck and Busses	2.5	0	0.4	0	2	0	0	0	0	0	0	1.3	1.8	0	1.5	0.6	0.8	0	0	0.8	1.5
School Buses	6	0	33	0	39	0	0	0	0	0	0	4	2	0	6	34	7	0	0	41	86
% School Buses	0.7	0	11.8	0	3.3	0	0	0	0	0	0	0.5	0.2	0	0.3	10.8	0.8	0	0	3.4	2

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010
Page No : 3



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

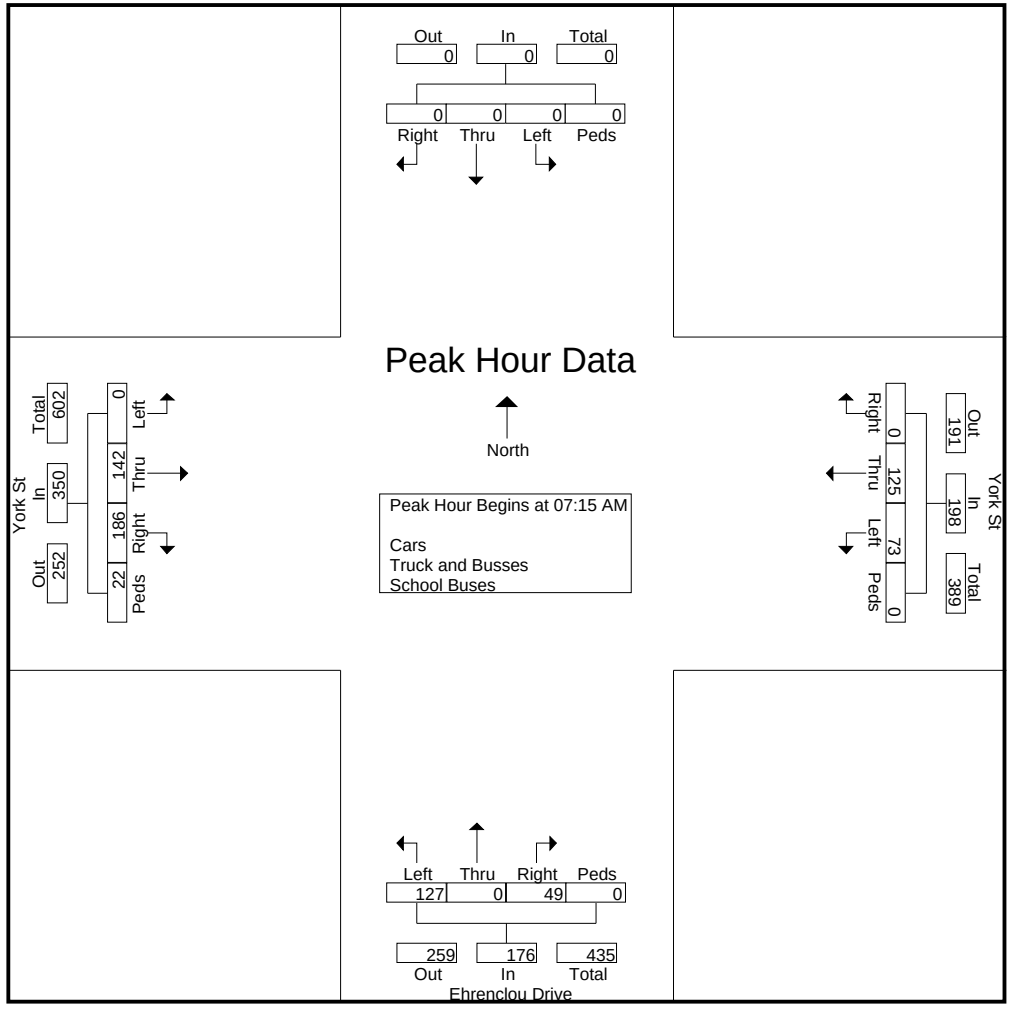
File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010

	Ehrenclou Drive Northbound					Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	33	0	5	0	38	0	0	0	0	0	0	31	**65**	6	102	20	21	0	0	41	181
07:30 AM	23	0	16	0	39	0	0	0	0	0	0	40	48	**10**	98	**25**	36	0	0	61	198
07:45 AM	**51**	0	**20**	0	**71**	0	0	0	0	0	0	**56**	44	6	**106**	14	**48**	0	0	**62**	**239**
08:00 AM	20	0	8	0	28	0	0	0	0	0	0	15	29	0	44	14	20	0	0	34	106
Total Volume	127	0	49	0	176	0	0	0	0	0	0	142	186	22	350	73	125	0	0	198	724
% App. Total	72.2	0	27.8	0		0	0	0	0		0	40.6	53.1	6.3		36.9	63.1	0	0		
PHF	.623	.000	.613	.000	.620	.000	.000	.000	.000	.000	.000	.634	.715	.550	.825	.730	.651	.000	.000	.798	.757

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010
Page No : 5



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

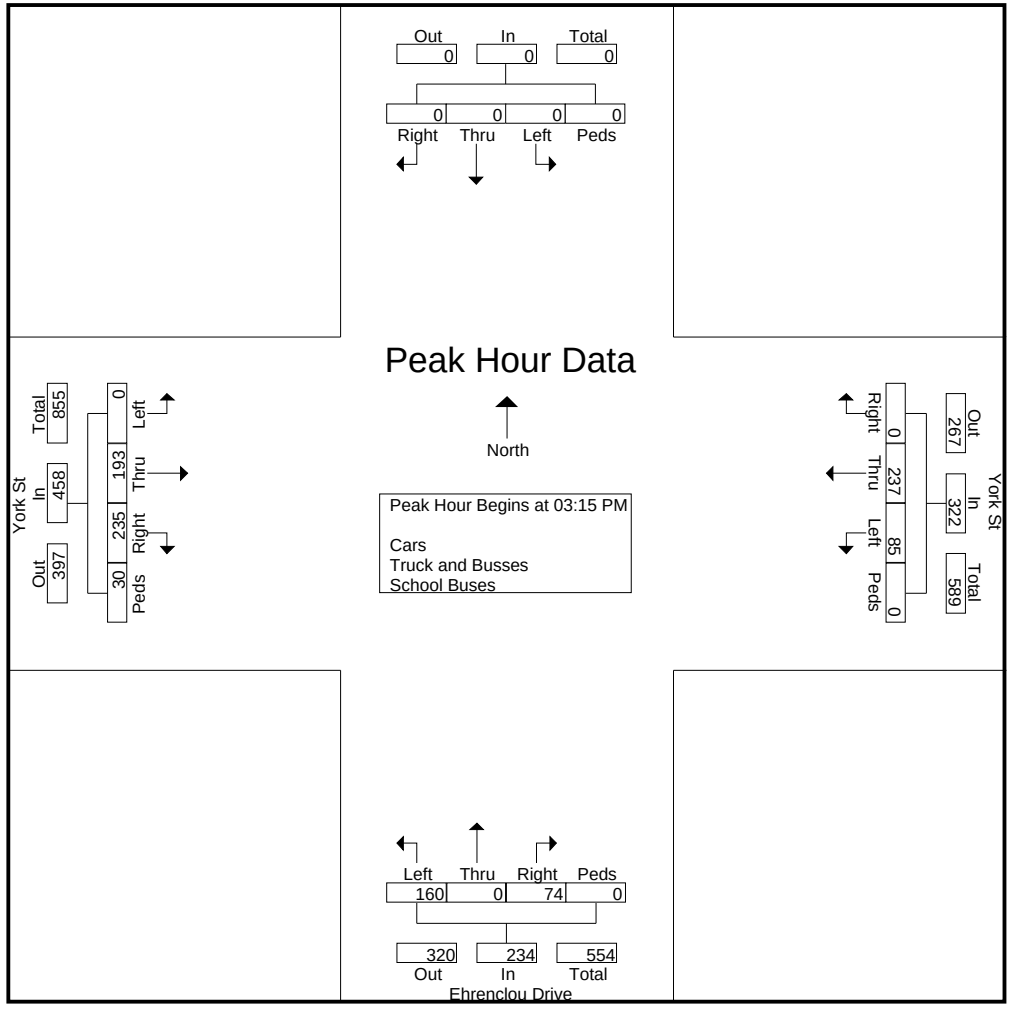
File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010

	Ehrenclou Drive Northbound					Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	32	0	**27**	0	59	0	0	0	0	0	0	49	42	**16**	107	16	51	0	0	67	233
03:30 PM	45	0	12	0	57	0	0	0	0	0	0	48	**75**	6	**129**	19	**73**	0	0	92	**278**
03:45 PM	34	0	19	0	53	0	0	0	0	0	0	**50**	71	3	124	**28**	70	0	0	**98**	275
04:00 PM	**49**	0	16	0	**65**	0	0	0	0	0	0	46	47	5	98	22	43	0	0	65	228
Total Volume	160	0	74	0	234	0	0	0	0	0	0	193	235	30	458	85	237	0	0	322	1014
% App. Total	68.4	0	31.6	0		0	0	0	0		0	42.1	51.3	6.6		26.4	73.6	0	0		
PHF	.816	.000	.685	.000	.900	.000	.000	.000	.000	.000	.000	.965	.783	.469	.888	.759	.812	.000	.000	.821	.912

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician Counting: WB
Weather: Fair

File Name : 10147-10
Site Code : 01014710
Start Date : 11/18/2010
Page No : 7



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-02
Site Code : 01014702
Start Date : 11/16/2010
Page No : 1

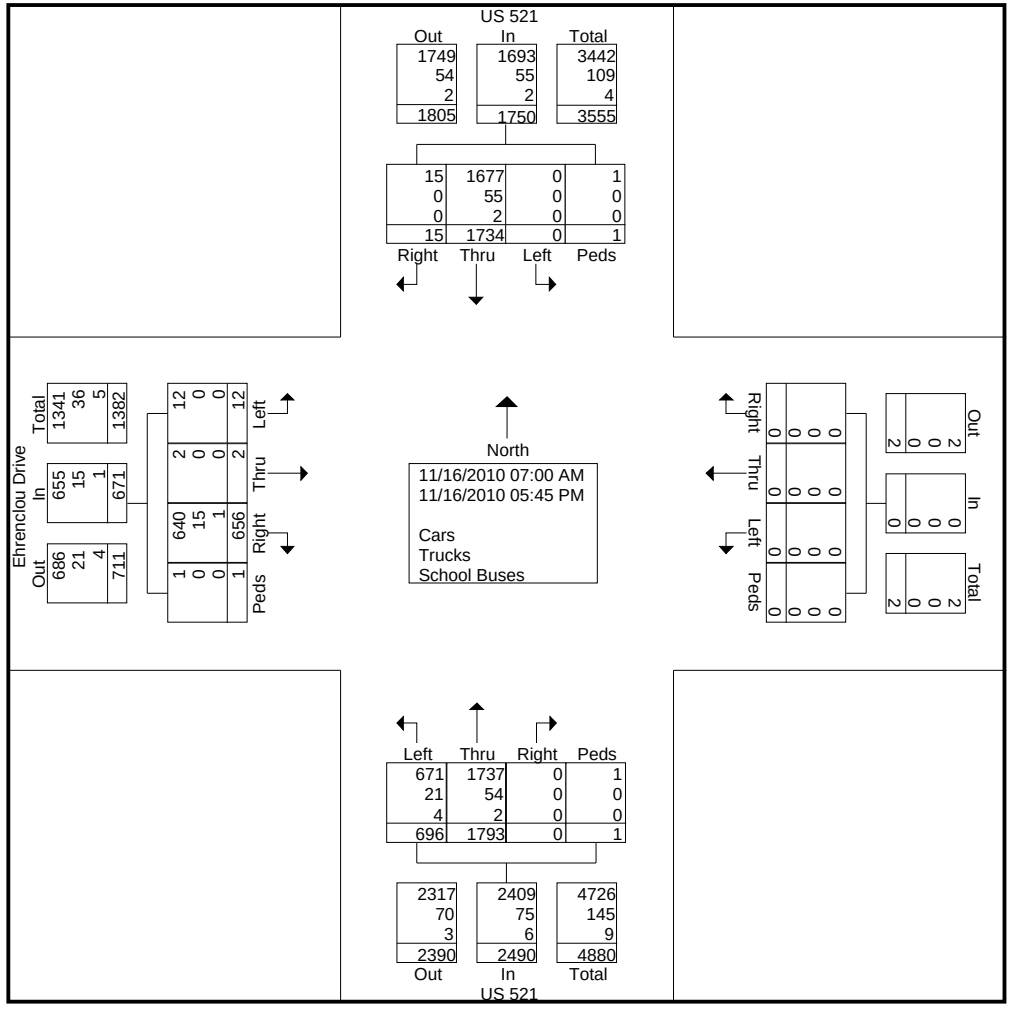
Groups Printed- Cars - Trucks - School Buses

	US 521 Northbound					US 521 Southbound					Ehrenclou Drive Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	40	98	0	0	138	0	105	1	0	106	0	0	45	0	45	0	0	0	0	0	289
07:15 AM	40	94	0	0	134	0	155	0	0	155	1	0	39	0	40	0	0	0	0	0	329
07:30 AM	52	91	0	0	143	0	149	1	0	150	2	0	39	0	41	0	0	0	0	0	334
07:45 AM	67	116	0	1	184	0	121	1	1	123	1	0	42	1	44	0	0	0	0	0	351
Total	199	399	0	1	599	0	530	3	1	534	4	0	165	1	170	0	0	0	0	0	1303
08:00 AM	36	107	0	0	143	0	83	1	0	84	0	0	26	0	26	0	0	0	0	0	253
08:15 AM	33	110	0	0	143	0	86	0	0	86	0	0	34	0	34	0	0	0	0	0	263
08:30 AM	37	104	0	0	141	0	83	0	0	83	1	0	20	0	21	0	0	0	0	0	245
08:45 AM	36	95	0	0	131	0	76	1	0	77	0	0	15	0	15	0	0	0	0	0	223
Total	142	416	0	0	558	0	328	2	0	330	1	0	95	0	96	0	0	0	0	0	984
*** BREAK ***																					
04:00 PM	40	106	0	0	146	0	108	0	0	108	1	0	39	0	40	0	0	0	0	0	294
04:15 PM	37	108	0	0	145	0	89	3	0	92	1	0	49	0	50	0	0	0	0	0	287
04:30 PM	46	136	0	0	182	0	105	2	0	107	0	0	45	0	45	0	0	0	0	0	334
04:45 PM	44	103	0	0	147	0	114	2	0	116	2	0	40	0	42	0	0	0	0	0	305
Total	167	453	0	0	620	0	416	7	0	423	4	0	173	0	177	0	0	0	0	0	1220
05:00 PM	42	134	0	0	176	0	129	0	0	129	0	0	56	0	56	0	0	0	0	0	361
05:15 PM	43	112	0	0	155	0	121	2	0	123	3	0	56	0	59	0	0	0	0	0	337
05:30 PM	57	155	0	0	212	0	116	0	0	116	0	2	64	0	66	0	0	0	0	0	394
05:45 PM	46	124	0	0	170	0	94	1	0	95	0	0	47	0	47	0	0	0	0	0	312
Total	188	525	0	0	713	0	460	3	0	463	3	2	223	0	228	0	0	0	0	0	1404
Grand Total	696	1793	0	1	2490	0	1734	15	1	1750	12	2	656	1	671	0	0	0	0	0	4911
Apprch %	28	72	0	0		0	99.1	0.9	0.1		1.8	0.3	97.8	0.1		0	0	0	0		
Total %	14.2	36.5	0	0	50.7	0	35.3	0.3	0	35.6	0.2	0	13.4	0	13.7	0	0	0	0	0	
Cars	671	1737	0	1	2409	0	1677	15	1	1693	12	2	640	1	655	0	0	0	0	0	4757
% Cars	96.4	96.9	0	100	96.7	0	96.7	100	100	96.7	100	100	97.6	100	97.6	0	0	0	0	0	96.9
Trucks	21	54	0	0	75	0	55	0	0	55	0	0	15	0	15	0	0	0	0	0	145
% Trucks	3	3	0	0	3	0	3.2	0	0	3.1	0	0	2.3	0	2.2	0	0	0	0	0	3
School Buses	4	2	0	0	6	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	9
% School Buses	0.6	0.1	0	0	0.2	0	0.1	0	0	0.1	0	0	0.2	0	0.1	0	0	0	0	0	0.2

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-02
Site Code : 01014702
Start Date : 11/16/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

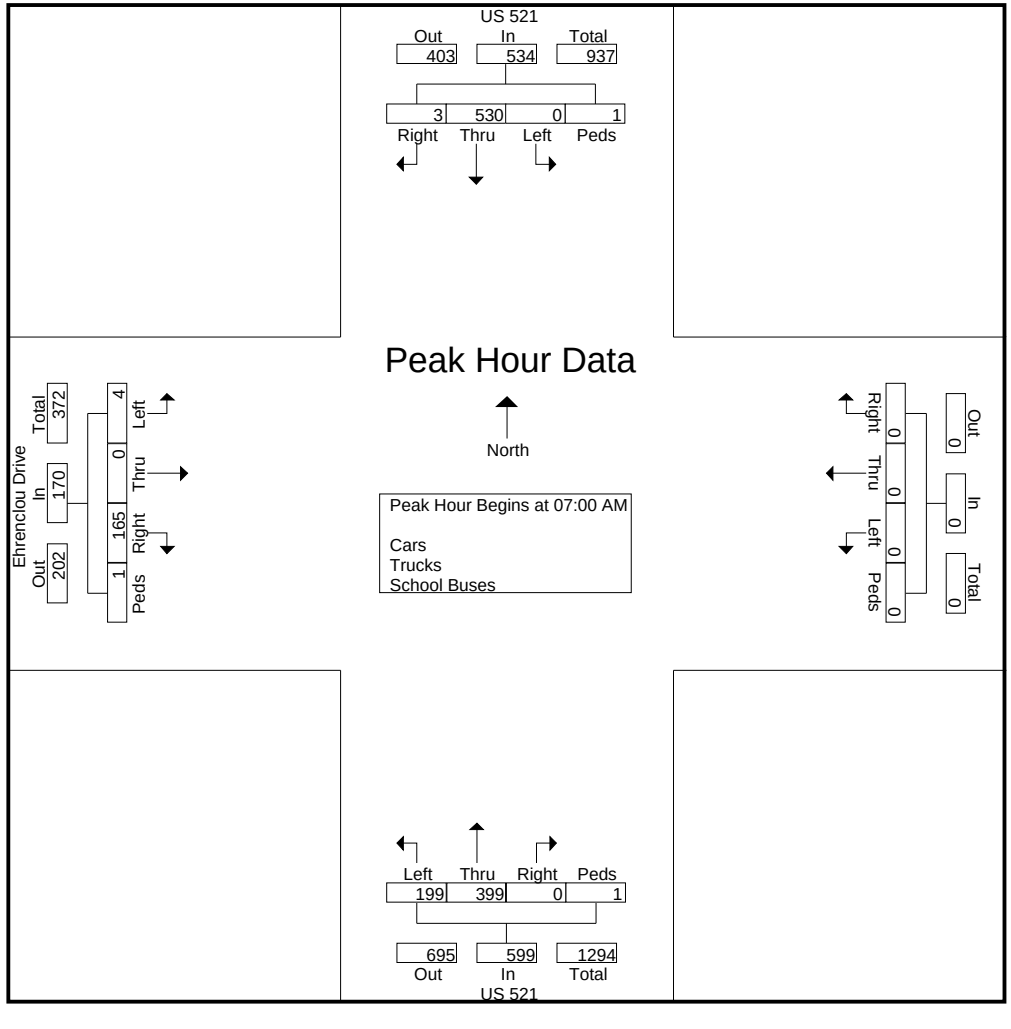
File Name : 10147-02
Site Code : 01014702
Start Date : 11/16/2010

	US 521 Northbound					US 521 Southbound					Ehrenclou Drive Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	40	98	0	0	138	0	105	**1**	0	106	0	0	**45**	0	**45**	0	0	0	0	0	289
07:15 AM	40	94	0	0	134	0	**155**	0	0	**155**	1	0	39	0	40	0	0	0	0	0	329
07:30 AM	52	91	0	0	143	0	149	1	0	150	**2**	0	39	0	41	0	0	0	0	0	334
07:45 AM	**67**	**116**	0	**1**	**184**	0	121	1	**1**	123	1	0	42	**1**	44	0	0	0	0	0	**351**
Total Volume	199	399	0	1	599	0	530	3	1	534	4	0	165	1	170	0	0	0	0	0	1303
% App. Total	33.2	66.6	0	0.2		0	99.3	0.6	0.2		2.4	0	97.1	0.6		0	0	0	0		
PHF	.743	.860	.000	.250	.814	.000	.855	.750	.250	.861	.500	.000	.917	.250	.944	.000	.000	.000	.000	.000	.928

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-02
Site Code : 01014702
Start Date : 11/16/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

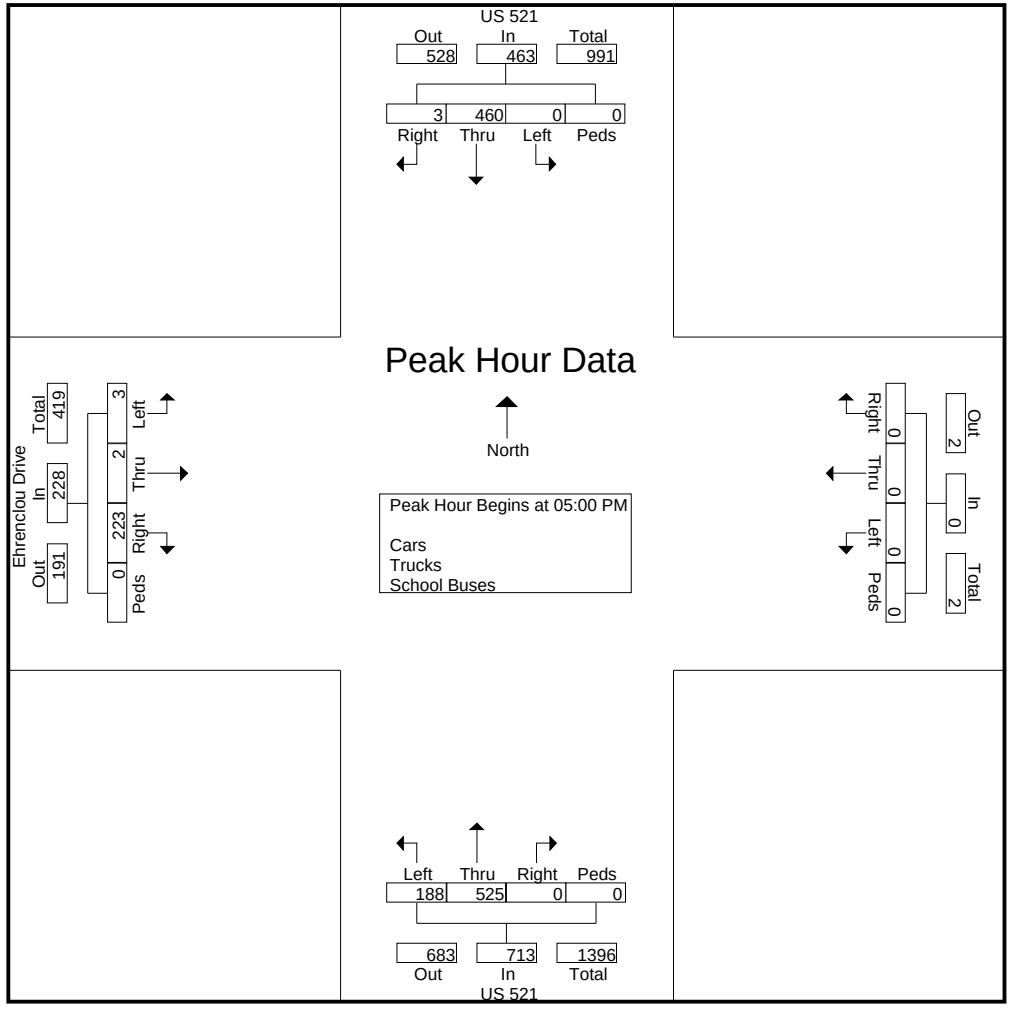
File Name : 10147-02
Site Code : 01014702
Start Date : 11/16/2010

	US 521 Northbound					US 521 Southbound					Ehrenclou Drive Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	42	134	0	0	176	0	**129**	0	0	**129**	0	0	56	0	56	0	0	0	0	0	361
05:15 PM	43	112	0	0	155	0	121	**2**	0	123	**3**	0	56	0	59	0	0	0	0	0	337
05:30 PM	**57**	**155**	0	0	**212**	0	116	0	0	116	0	**2**	**64**	0	**66**	0	0	0	0	0	**394**
05:45 PM	46	124	0	0	170	0	94	1	0	95	0	0	47	0	47	0	0	0	0	0	312
Total Volume	188	525	0	0	713	0	460	3	0	463	3	2	223	0	228	0	0	0	0	0	1404
% App. Total	26.4	73.6	0	0		0	99.4	0.6	0		1.3	0.9	97.8	0		0	0	0	0		
PHF	.825	.847	.000	.000	.841	.000	.891	.375	.000	.897	.250	.250	.871	.000	.864	.000	.000	.000	.000	.000	.891

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-02
Site Code : 01014702
Start Date : 11/16/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-05
Site Code : 01014705
Start Date : 11/18/2010

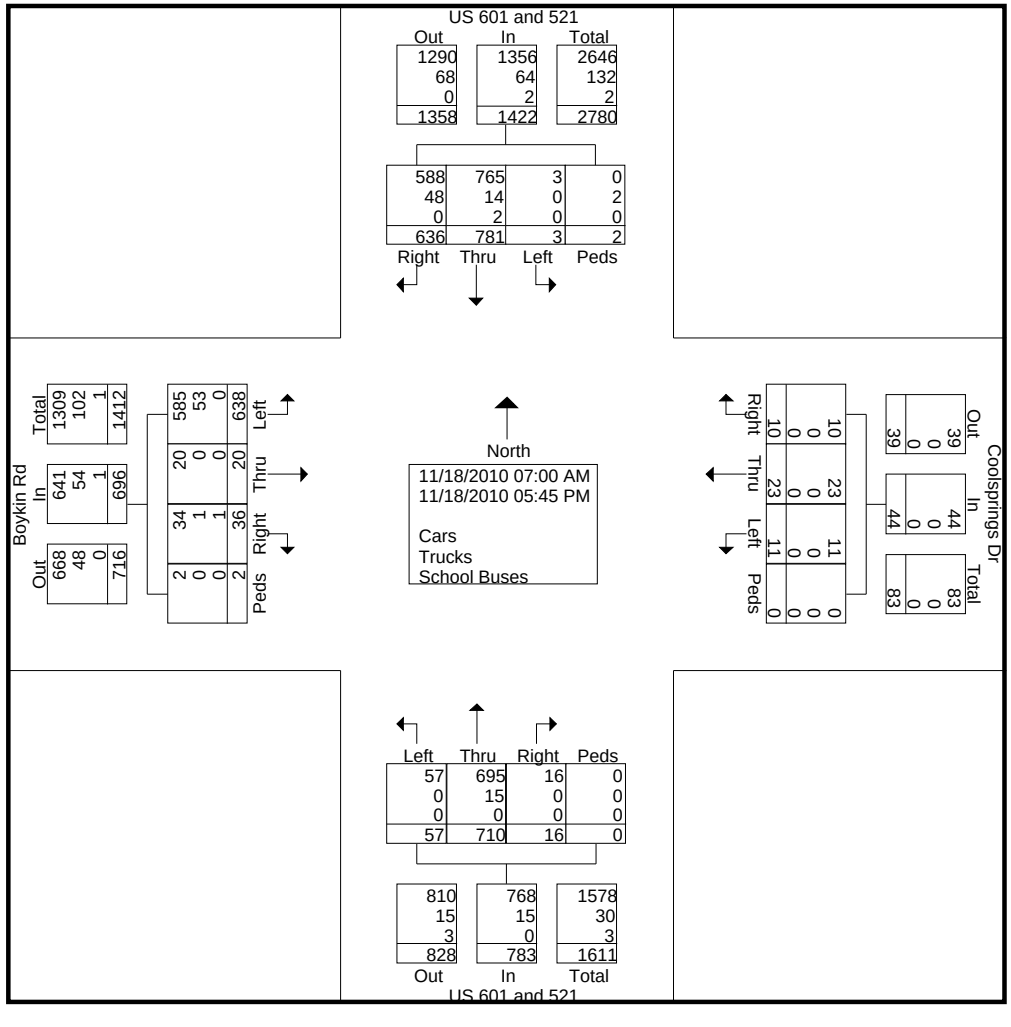
Groups Printed- Cars - Trucks - School Buses

	US 601 and 521 Northbound					US 601 and 521 Southbound					Boykin Rd Eastbound					Coolsprings Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	4	27	0	0	31	0	45	65	0	110	28	0	1	0	29	0	3	0	0	3	173
07:15 AM	3	24	0	0	27	0	68	73	0	141	31	1	1	0	33	1	1	0	0	2	203
07:30 AM	2	23	1	0	26	0	63	69	0	132	24	1	1	1	27	0	1	0	0	1	186
07:45 AM	2	33	0	0	35	0	73	59	0	132	15	0	0	0	15	1	2	0	0	3	185
Total	11	107	1	0	119	0	249	266	0	515	98	2	3	1	104	2	7	0	0	9	747
08:00 AM	1	34	1	0	36	1	53	35	0	89	19	0	2	0	21	0	0	0	0	0	146
08:15 AM	5	18	0	0	23	0	63	42	0	105	18	0	1	0	19	0	1	0	0	1	148
08:30 AM	3	25	0	0	28	0	42	20	0	62	14	0	2	0	16	0	1	0	0	1	107
08:45 AM	4	28	1	0	33	0	40	38	2	80	19	2	0	0	21	0	0	2	0	2	136
Total	13	105	2	0	120	1	198	135	2	336	70	2	5	0	77	0	2	2	0	4	537
*** BREAK ***																					
04:00 PM	1	69	2	0	72	1	37	35	0	73	58	3	3	0	64	0	1	0	0	1	210
04:15 PM	7	54	1	0	62	1	40	15	0	56	60	2	6	0	68	3	5	2	0	10	196
04:30 PM	4	60	0	0	64	0	43	26	0	69	55	2	5	1	63	2	1	0	0	3	199
04:45 PM	2	52	2	0	56	0	45	28	0	73	43	3	1	0	47	1	2	0	0	3	179
Total	14	235	5	0	254	2	165	104	0	271	216	10	15	1	242	6	9	2	0	17	784
05:00 PM	5	72	1	0	78	0	45	35	0	80	65	2	3	0	70	0	1	1	0	2	230
05:15 PM	4	60	3	0	67	0	40	39	0	79	61	2	1	0	64	1	1	5	0	7	217
05:30 PM	5	67	1	0	73	0	44	28	0	72	60	2	5	0	67	2	1	0	0	3	215
05:45 PM	5	64	3	0	72	0	40	29	0	69	68	0	4	0	72	0	2	0	0	2	215
Total	19	263	8	0	290	0	169	131	0	300	254	6	13	0	273	3	5	6	0	14	877
Grand Total	57	710	16	0	783	3	781	636	2	1422	638	20	36	2	696	11	23	10	0	44	2945
Apprch %	7.3	90.7	2	0		0.2	54.9	44.7	0.1		91.7	2.9	5.2	0.3		25	52.3	22.7	0		
Total %	1.9	24.1	0.5	0	26.6	0.1	26.5	21.6	0.1	48.3	21.7	0.7	1.2	0.1	23.6	0.4	0.8	0.3	0	1.5	
Cars	57	695	16	0	768	3	765	588	0	1356	585	20	34	2	641	11	23	10	0	44	2809
% Cars	100	97.9	100	0	98.1	100	98	92.5	0	95.4	91.7	100	94.4	100	92.1	100	100	100	0	100	95.4
Trucks	0	15	0	0	15	0	14	48	2	64	53	0	1	0	54	0	0	0	0	0	133
% Trucks	0	2.1	0	0	1.9	0	1.8	7.5	100	4.5	8.3	0	2.8	0	7.8	0	0	0	0	0	4.5
School Buses	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	3
% School Buses	0	0	0	0	0	0	0.3	0	0	0.1	0	0	2.8	0	0.1	0	0	0	0	0	0.1

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-05
Site Code : 01014705
Start Date : 11/18/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

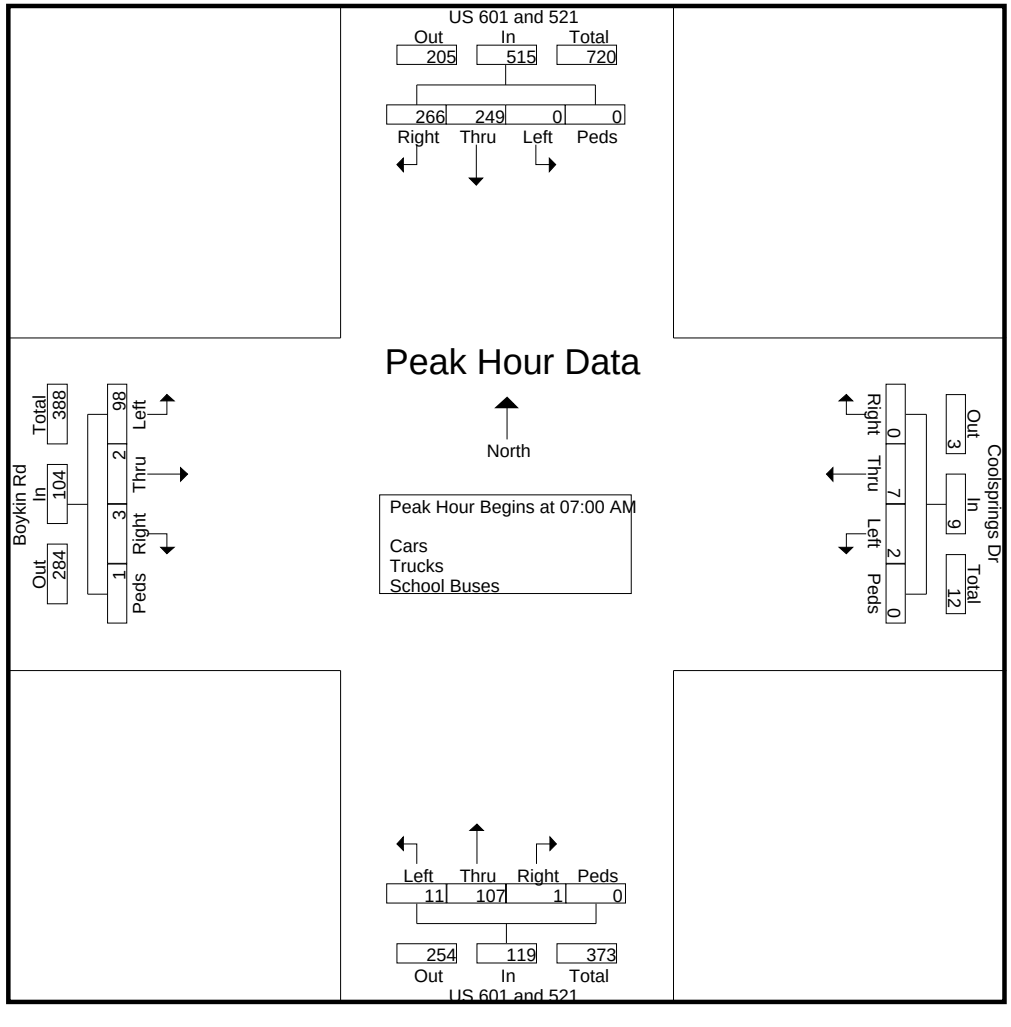
File Name : 10147-05
Site Code : 01014705
Start Date : 11/18/2010

	US 601 and 521 Northbound					US 601 and 521 Southbound					Boykin Rd Eastbound					Coolsprings Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	**4**	27	0	0	31	0	45	65	0	110	28	0	**1**	0	29	0	**3**	0	0	**3**	173
07:15 AM	3	24	0	0	27	0	68	**73**	0	**141**	**31**	**1**	1	0	**33**	**1**	1	0	0	2	**203**
07:30 AM	2	23	**1**	0	26	0	63	69	0	132	24	1	1	**1**	27	0	1	0	0	1	186
07:45 AM	2	**33**	0	0	**35**	0	**73**	59	0	132	15	0	0	0	15	1	2	0	0	3	185
Total Volume	11	107	1	0	119	0	249	266	0	515	98	2	3	1	104	2	7	0	0	9	747
% App. Total	9.2	89.9	0.8	0		0	48.3	51.7	0		94.2	1.9	2.9	1		22.2	77.8	0	0		
PHF	.688	.811	.250	.000	.850	.000	.853	.911	.000	.913	.790	.500	.750	.250	.788	.500	.583	.000	.000	.750	.920

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-05
Site Code : 01014705
Start Date : 11/18/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

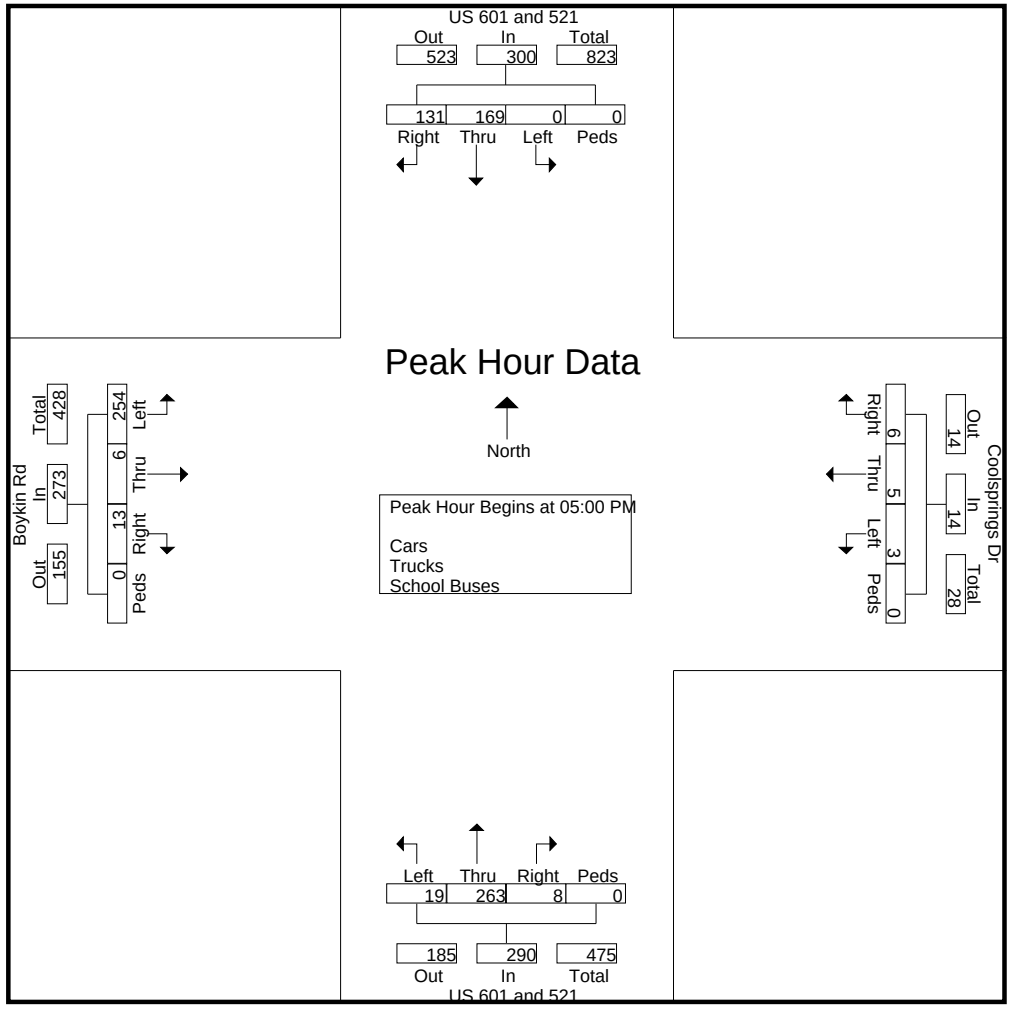
File Name : 10147-05
Site Code : 01014705
Start Date : 11/18/2010

	US 601 and 521 Northbound					US 601 and 521 Southbound					Boykin Rd Eastbound					Coolsprings Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	**5**	**72**	1	0	**78**	0	**45**	35	0	**80**	65	**2**	3	0	70	0	1	1	0	2	**230**
05:15 PM	4	60	**3**	0	67	0	40	**39**	0	79	61	2	1	0	64	1	1	**5**	0	**7**	217
05:30 PM	5	67	1	0	73	0	44	28	0	72	60	2	**5**	0	67	**2**	1	0	0	3	215
05:45 PM	5	64	3	0	72	0	40	29	0	69	**68**	0	4	0	**72**	0	**2**	0	0	2	215
Total Volume	19	263	8	0	290	0	169	131	0	300	254	6	13	0	273	3	5	6	0	14	877
% App. Total	6.6	90.7	2.8	0		0	56.3	43.7	0		93	2.2	4.8	0		21.4	35.7	42.9	0		
PHF	.950	.913	.667	.000	.929	.000	.939	.840	.000	.938	.934	.750	.650	.000	.948	.375	.625	.300	.000	.500	.953

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-2073
Technician : JV
Weather: Fair
Other: S&S

File Name : 10147-05
Site Code : 01014705
Start Date : 11/18/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-09
Site Code : 01014709
Start Date : 11/30/2010
Page No : 1

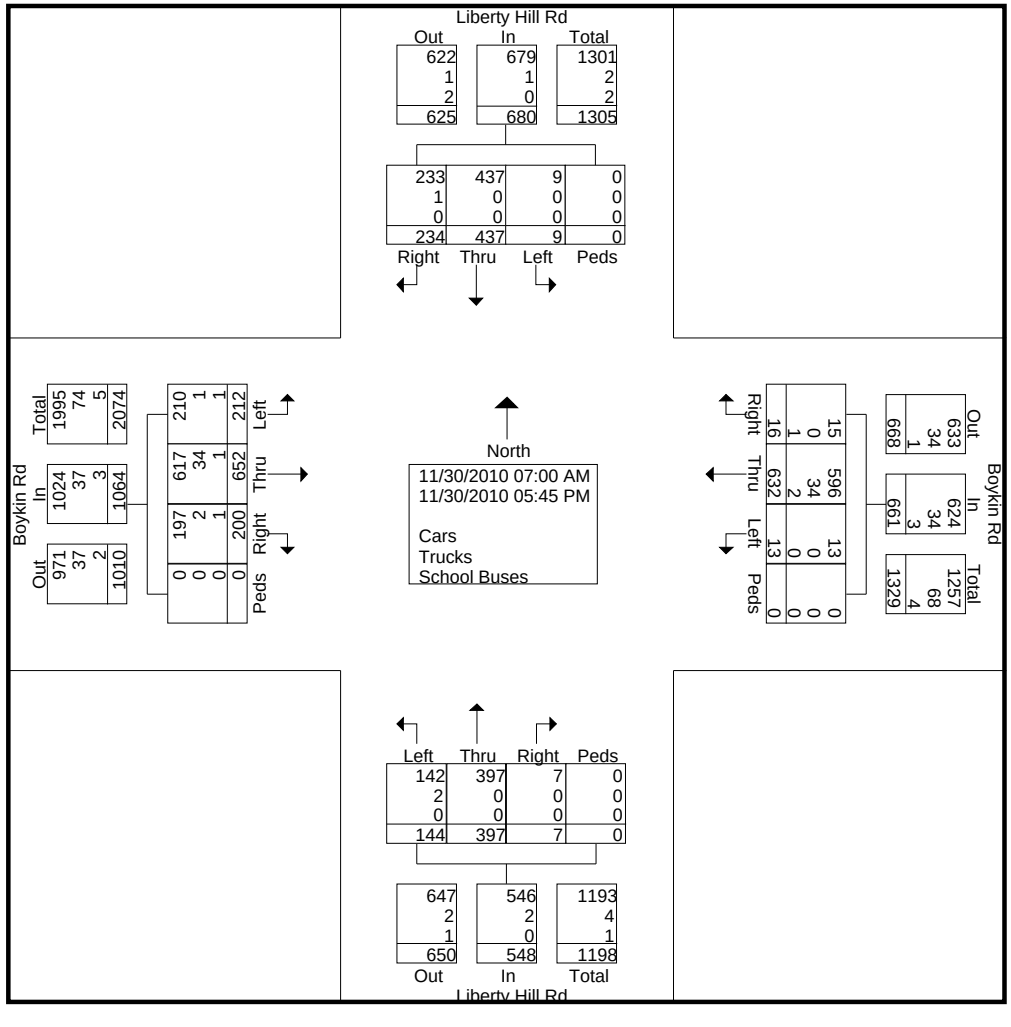
Groups Printed- Cars - Trucks - School Buses

	Liberty Hill Rd Northbound					Liberty Hill Rd Southbound					Boykin Rd Eastbound					Boykin Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	6	12	1	0	19	0	38	19	0	57	7	31	6	0	44	1	65	0	0	66	186
07:15 AM	10	12	0	0	22	0	42	20	0	62	5	28	10	0	43	0	65	0	0	65	192
07:30 AM	12	14	0	0	26	2	42	23	0	67	5	28	6	0	39	0	61	0	0	61	193
07:45 AM	14	20	0	0	34	1	50	25	0	76	8	18	13	0	39	1	56	0	0	57	206
Total	42	58	1	0	101	3	172	87	0	262	25	105	35	0	165	2	247	0	0	249	777
08:00 AM	8	13	1	0	22	2	30	24	0	56	3	18	13	0	34	0	51	0	0	51	163
08:15 AM	7	15	0	0	22	2	28	11	0	41	16	16	8	0	40	3	32	0	0	35	138
08:30 AM	10	22	1	0	33	0	24	9	0	33	6	23	12	0	41	0	34	1	0	35	142
08:45 AM	6	19	0	0	25	0	24	11	0	35	6	12	8	0	26	1	39	1	0	41	127
Total	31	69	2	0	102	4	106	55	0	165	31	69	41	0	141	4	156	2	0	162	570
*** BREAK ***																					
04:00 PM	10	27	1	0	38	1	23	11	0	35	21	50	16	0	87	1	25	2	0	28	188
04:15 PM	7	26	0	0	33	1	21	11	0	33	20	61	15	0	96	1	26	0	0	27	189
04:30 PM	10	27	1	0	38	0	17	8	0	25	16	43	16	0	75	2	26	1	0	29	167
04:45 PM	11	32	1	0	44	0	20	15	0	35	17	57	13	0	87	1	34	1	0	36	202
Total	38	112	3	0	153	2	81	45	0	128	74	211	60	0	345	5	111	4	0	120	746
05:00 PM	9	48	1	0	58	0	19	4	0	23	20	68	19	0	107	0	35	3	0	38	226
05:15 PM	9	42	0	0	51	0	19	15	0	34	24	67	22	0	113	1	28	2	0	31	229
05:30 PM	6	34	0	0	40	0	21	15	0	36	23	70	12	0	105	0	32	4	0	36	217
05:45 PM	9	34	0	0	43	0	19	13	0	32	15	62	11	0	88	1	23	1	0	25	188
Total	33	158	1	0	192	0	78	47	0	125	82	267	64	0	413	2	118	10	0	130	860
Grand Total	144	397	7	0	548	9	437	234	0	680	212	652	200	0	1064	13	632	16	0	661	2953
Apprch %	26.3	72.4	1.3	0		1.3	64.3	34.4	0		19.9	61.3	18.8	0		2	95.6	2.4	0		
Total %	4.9	13.4	0.2	0	18.6	0.3	14.8	7.9	0	23	7.2	22.1	6.8	0	36	0.4	21.4	0.5	0	22.4	
Cars	142	397	7	0	546	9	437	233	0	679	210	617	197	0	1024	13	596	15	0	624	2873
% Cars	98.6	100	100	0	99.6	100	100	99.6	0	99.9	99.1	94.6	98.5	0	96.2	100	94.3	93.8	0	94.4	97.3
Trucks	2	0	0	0	2	0	0	1	0	1	1	34	2	0	37	0	34	0	0	34	74
% Trucks	1.4	0	0	0	0.4	0	0	0.4	0	0.1	0.5	5.2	1	0	3.5	0	5.4	0	0	5.1	2.5
School Buses	0	0	0	0	0	0	0	0	0	0	1	1	1	0	3	0	2	1	0	3	6
% School Buses	0	0	0	0	0	0	0	0	0	0	0.5	0.2	0.5	0	0.3	0	0.3	6.2	0	0.5	0.2

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-09
Site Code : 01014709
Start Date : 11/30/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

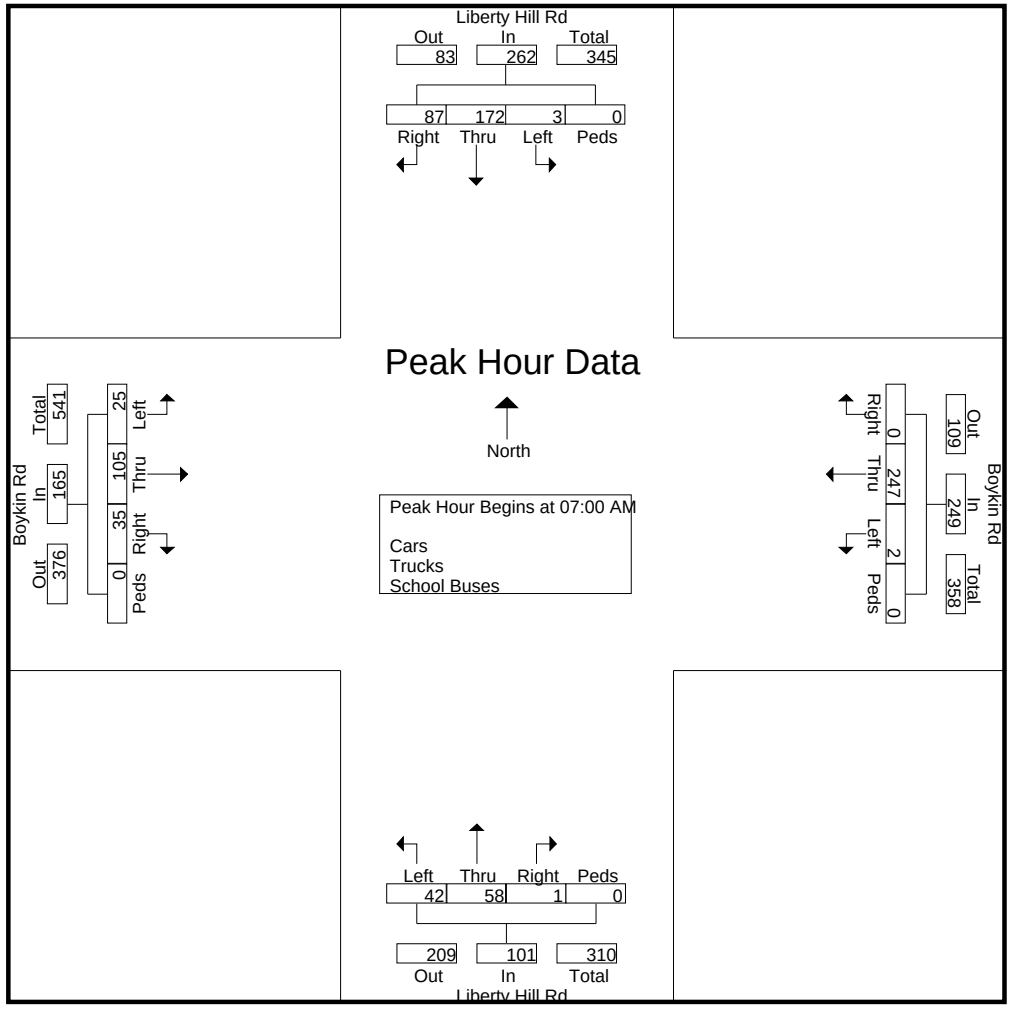
File Name : 10147-09
Site Code : 01014709
Start Date : 11/30/2010

	Liberty Hill Rd Northbound					Liberty Hill Rd Southbound					Boykin Rd Eastbound					Boykin Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	6	12	**1**	0	19	0	38	19	0	57	7	**31**	6	0	**44**	**1**	**65**	0	0	**66**	186
07:15 AM	10	12	0	0	22	0	42	20	0	62	5	28	10	0	43	0	65	0	0	65	192
07:30 AM	12	14	0	0	26	**2**	42	23	0	67	5	28	6	0	39	0	61	0	0	61	193
07:45 AM	**14**	**20**	0	0	**34**	1	**50**	**25**	0	**76**	**8**	18	**13**	0	39	1	56	0	0	57	**206**
Total Volume	42	58	1	0	101	3	172	87	0	262	25	105	35	0	165	2	247	0	0	249	777
% App. Total	41.6	57.4	1	0		1.1	65.6	33.2	0		15.2	63.6	21.2	0		0.8	99.2	0	0		
PHF	.750	.725	.250	.000	.743	.375	.860	.870	.000	.862	.781	.847	.673	.000	.938	.500	.950	.000	.000	.943	.943

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-09
Site Code : 01014709
Start Date : 11/30/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

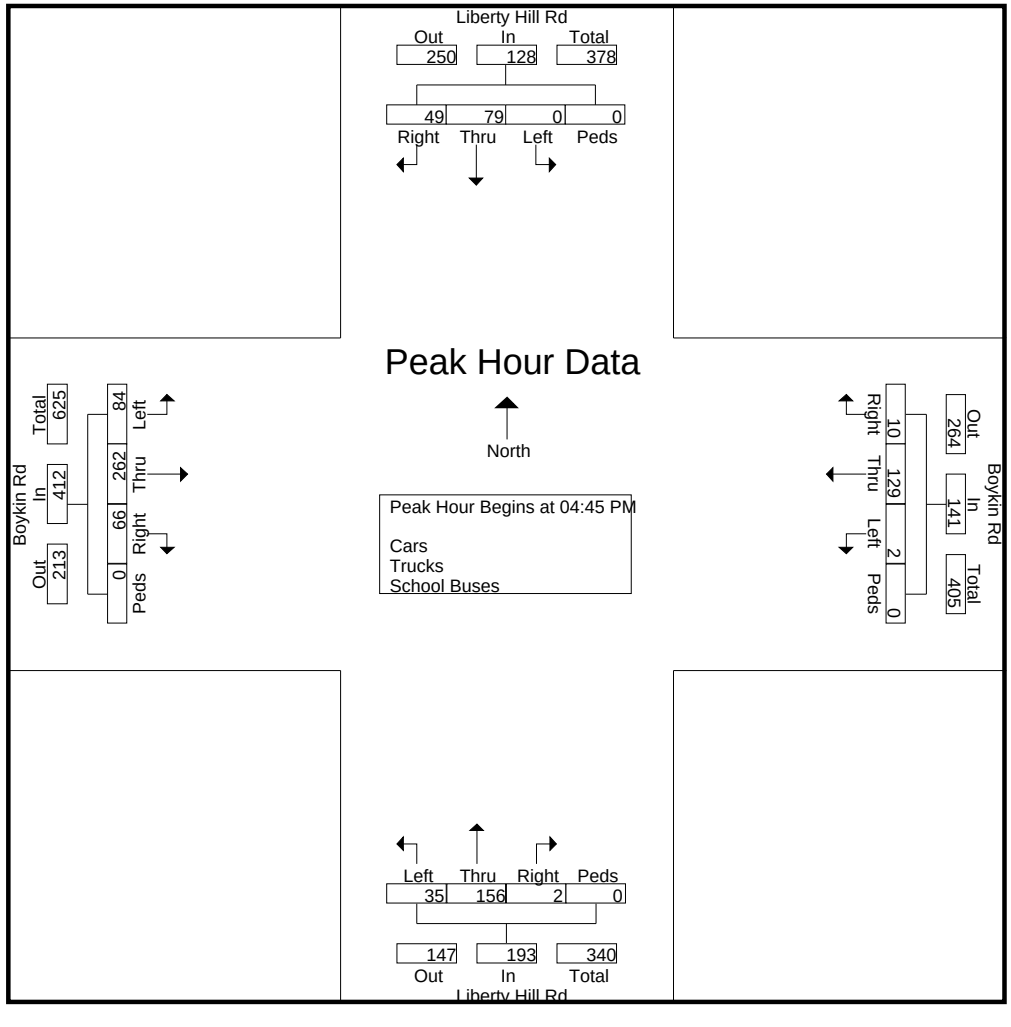
File Name : 10147-09
Site Code : 01014709
Start Date : 11/30/2010

	Liberty Hill Rd Northbound					Liberty Hill Rd Southbound					Boykin Rd Eastbound					Boykin Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**11**	32	**1**	0	44	0	20	**15**	0	35	17	57	13	0	87	**1**	34	1	0	36	202
05:00 PM	9	**48**	1	0	**58**	0	19	4	0	23	20	68	19	0	107	0	**35**	3	0	**38**	226
05:15 PM	9	42	0	0	51	0	19	15	0	34	**24**	67	**22**	0	**113**	1	28	2	0	31	**229**
05:30 PM	6	34	0	0	40	0	**21**	15	0	**36**	23	**70**	12	0	105	0	32	**4**	0	36	217
Total Volume	35	156	2	0	193	0	79	49	0	128	84	262	66	0	412	2	129	10	0	141	874
% App. Total	18.1	80.8	1	0		0	61.7	38.3	0		20.4	63.6	16	0		1.4	91.5	7.1	0		
PHF	.795	.813	.500	.000	.832	.000	.940	.817	.000	.889	.875	.936	.750	.000	.912	.500	.921	.625	.000	.928	.954

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-09
Site Code : 01014709
Start Date : 11/30/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-06
Site Code : 01014706
Start Date : 11/30/2010

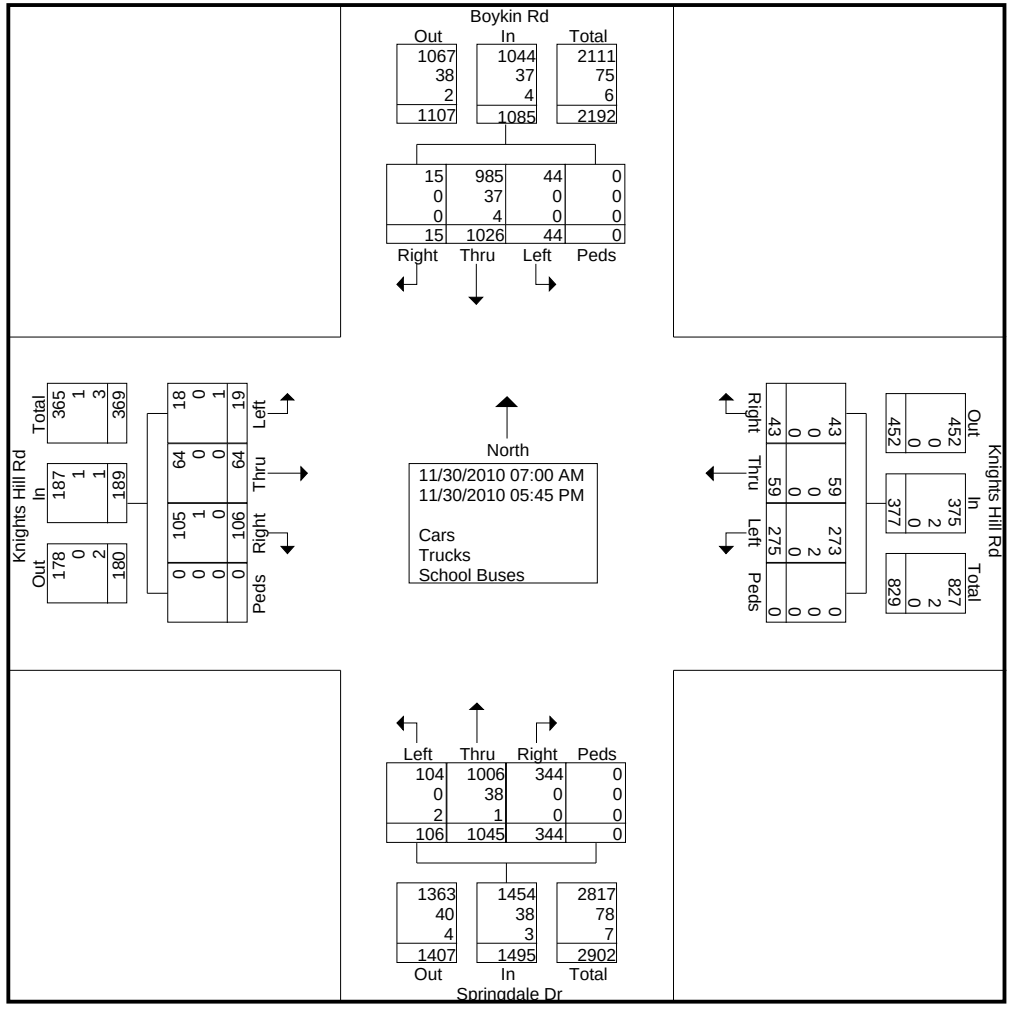
Groups Printed- Cars - Trucks - School Buses

	Springdale Dr Northbound					Boykin Rd Southbound					Knights Hill Rd Eastbound					Knights Hill Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	41	11	0	54	3	102	1	0	106	1	9	16	0	26	9	0	3	0	12	198
07:15 AM	4	26	17	0	47	5	100	2	0	107	3	5	7	0	15	13	2	0	0	15	184
07:30 AM	4	35	12	0	51	2	106	1	0	109	1	2	7	0	10	11	8	2	0	21	191
07:45 AM	1	29	20	0	50	5	94	0	0	99	0	5	15	0	20	13	2	3	0	18	187
Total	11	131	60	0	202	15	402	4	0	421	5	21	45	0	71	46	12	8	0	66	760
08:00 AM	4	27	13	0	44	3	71	1	0	75	0	3	4	0	7	10	4	0	0	14	140
08:15 AM	3	41	14	0	58	4	56	0	0	60	0	4	5	0	9	15	0	2	0	17	144
08:30 AM	3	28	12	0	43	3	46	1	0	50	0	4	7	0	11	13	1	3	0	17	121
08:45 AM	4	23	6	0	33	1	52	0	0	53	3	6	4	0	13	16	4	0	0	20	119
Total	14	119	45	0	178	11	225	2	0	238	3	17	20	0	40	54	9	5	0	68	524
*** BREAK ***																					
04:00 PM	8	88	30	0	126	1	50	1	0	52	1	3	5	0	9	21	2	2	0	25	212
04:15 PM	11	93	36	0	140	2	39	0	0	41	0	0	2	0	2	17	8	1	0	26	209
04:30 PM	6	84	32	0	122	2	51	0	0	53	0	3	6	0	9	26	5	2	0	33	217
04:45 PM	10	75	36	0	121	2	55	2	0	59	1	3	6	0	10	21	3	6	0	30	220
Total	35	340	134	0	509	7	195	3	0	205	2	9	19	0	30	85	18	11	0	114	858
05:00 PM	7	120	27	0	154	2	49	1	0	52	2	2	3	0	7	28	2	7	0	37	250
05:15 PM	14	109	33	0	156	4	48	2	0	54	4	6	7	0	17	20	7	6	0	33	260
05:30 PM	13	118	26	0	157	3	61	2	0	66	1	3	8	0	12	20	7	4	0	31	266
05:45 PM	12	108	19	0	139	2	46	1	0	49	2	6	4	0	12	22	4	2	0	28	228
Total	46	455	105	0	606	11	204	6	0	221	9	17	22	0	48	90	20	19	0	129	1004
Grand Total	106	1045	344	0	1495	44	1026	15	0	1085	19	64	106	0	189	275	59	43	0	377	3146
Apprch %	7.1	69.9	23	0		4.1	94.6	1.4	0		10.1	33.9	56.1	0		72.9	15.6	11.4	0		
Total %	3.4	33.2	10.9	0	47.5	1.4	32.6	0.5	0	34.5	0.6	2	3.4	0	6	8.7	1.9	1.4	0	12	
Cars	104	1006	344	0	1454	44	985	15	0	1044	18	64	105	0	187	273	59	43	0	375	3060
% Cars	98.1	96.3	100	0	97.3	100	96	100	0	96.2	94.7	100	99.1	0	98.9	99.3	100	100	0	99.5	97.3
Trucks	0	38	0	0	38	0	37	0	0	37	0	0	1	0	1	2	0	0	0	2	78
% Trucks	0	3.6	0	0	2.5	0	3.6	0	0	3.4	0	0	0.9	0	0.5	0.7	0	0	0	0.5	2.5
School Buses	2	1	0	0	3	0	4	0	0	4	1	0	0	0	1	0	0	0	0	0	8
% School Buses	1.9	0.1	0	0	0.2	0	0.4	0	0	0.4	5.3	0	0	0	0.5	0	0	0	0	0	0.3

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-06
Site Code : 01014706
Start Date : 11/30/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

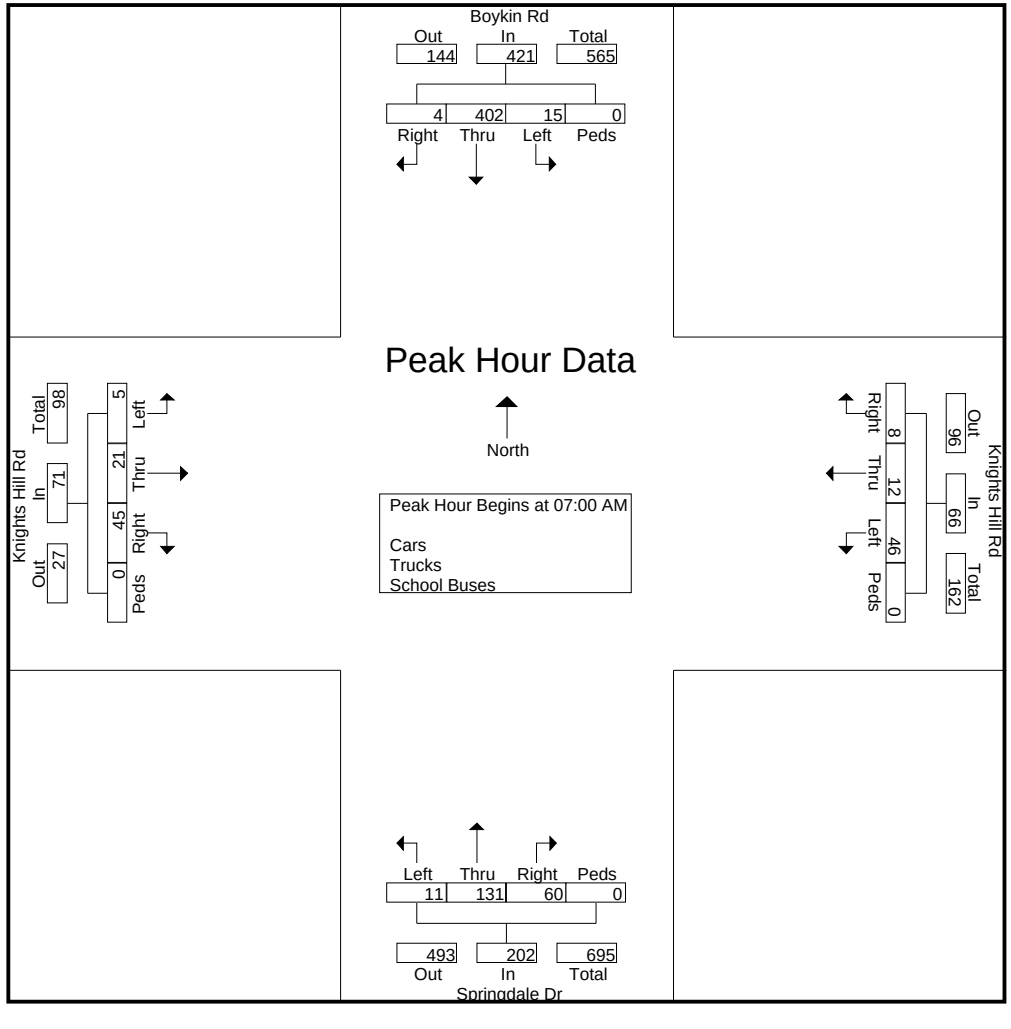
File Name : 10147-06
Site Code : 01014706
Start Date : 11/30/2010

	Springdale Dr Northbound					Boykin Rd Southbound					Knights Hill Rd Eastbound					Knights Hill Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	2	**41**	11	0	**54**	3	102	1	0	106	1	**9**	**16**	0	**26**	9	0	**3**	0	12	**198**
07:15 AM	**4**	26	17	0	47	**5**	100	**2**	0	107	**3**	5	7	0	15	**13**	2	0	0	15	184
07:30 AM	4	35	12	0	51	2	**106**	1	0	**109**	1	2	7	0	10	11	**8**	2	0	**21**	191
07:45 AM	1	29	**20**	0	50	5	94	0	0	99	0	5	15	0	20	13	2	3	0	18	187
Total Volume	11	131	60	0	202	15	402	4	0	421	5	21	45	0	71	46	12	8	0	66	760
% App. Total	5.4	64.9	29.7	0		3.6	95.5	1	0		7	29.6	63.4	0		69.7	18.2	12.1	0		
PHF	.688	.799	.750	.000	.935	.750	.948	.500	.000	.966	.417	.583	.703	.000	.683	.885	.375	.667	.000	.786	.960

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-06
Site Code : 01014706
Start Date : 11/30/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

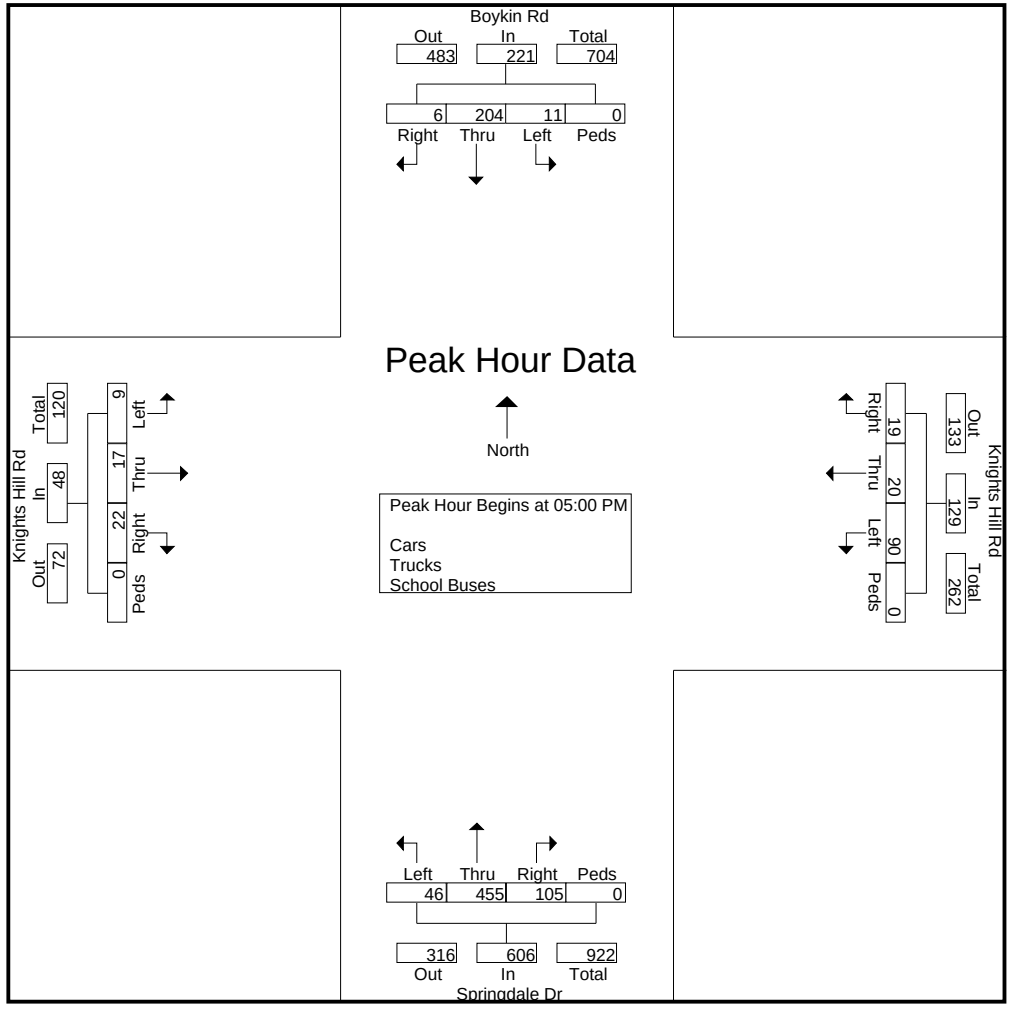
File Name : 10147-06
Site Code : 01014706
Start Date : 11/30/2010

	Springdale Dr Northbound					Boykin Rd Southbound					Knights Hill Rd Eastbound					Knights Hill Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	7	**120**	27	0	154	2	49	1	0	52	2	2	3	0	7	**28**	2	**7**	0	**37**	250
05:15 PM	**14**	109	**33**	0	156	**4**	48	**2**	0	54	**4**	**6**	7	0	**17**	20	**7**	6	0	33	260
05:30 PM	13	118	26	0	**157**	3	**61**	2	0	**66**	1	3	**8**	0	12	20	7	4	0	31	**266**
05:45 PM	12	108	19	0	139	2	46	1	0	49	2	6	4	0	12	22	4	2	0	28	228
Total Volume	46	455	105	0	606	11	204	6	0	221	9	17	22	0	48	90	20	19	0	129	1004
% App. Total	7.6	75.1	17.3	0		5	92.3	2.7	0		18.8	35.4	45.8	0		69.8	15.5	14.7	0		
PHF	.821	.948	.795	.000	.965	.688	.836	.750	.000	.837	.563	.708	.688	.000	.706	.804	.714	.679	.000	.872	.944

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-2291
Counted By: BE
Weather: Cold
Other: S&S

File Name : 10147-06
Site Code : 01014706
Start Date : 11/30/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-08
Site Code : 01014708
Start Date : 12/1/2010
Page No : 1

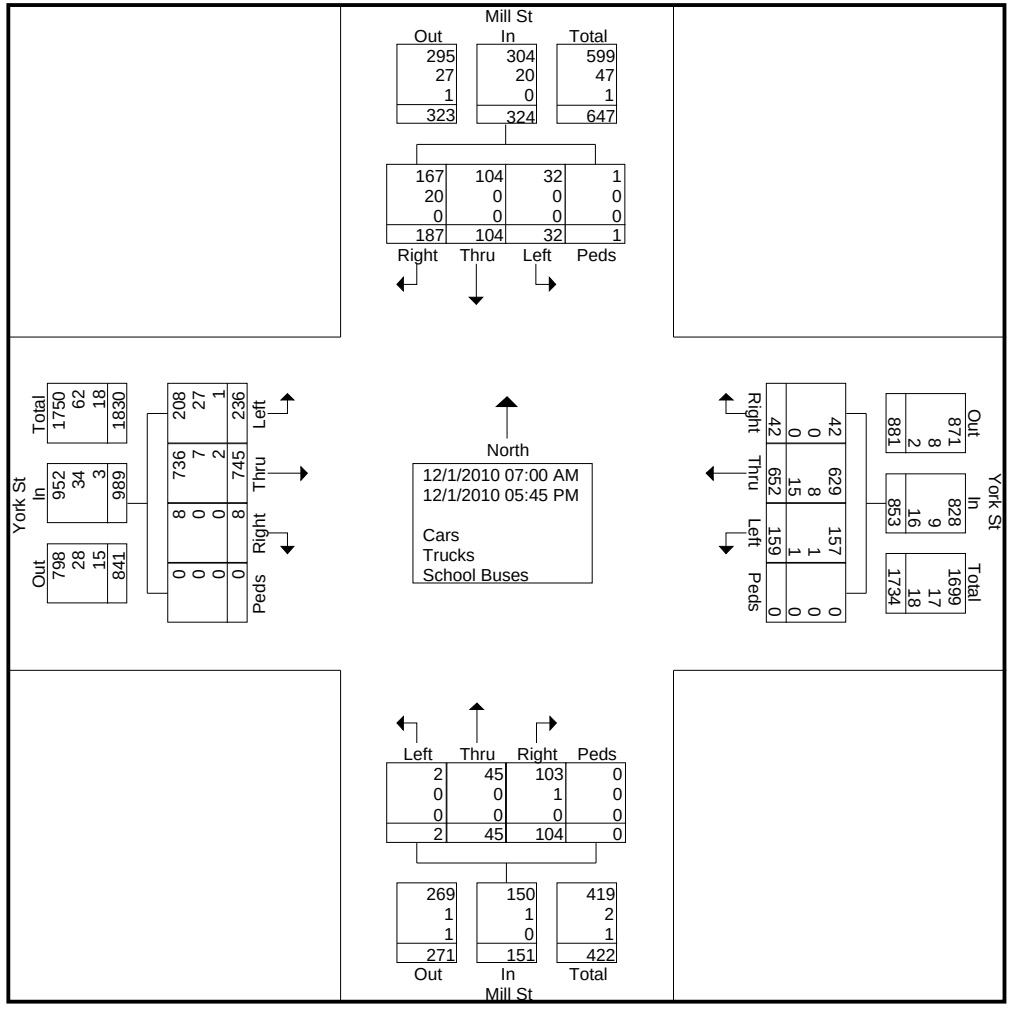
Groups Printed- Cars - Trucks - School Buses

	Mill St Northbound					Mill St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	2	5	0	7	1	2	9	0	12	8	24	0	0	32	18	35	3	0	56	107
07:15 AM	0	2	10	0	12	1	10	10	0	21	6	52	0	0	58	26	55	2	0	83	174
07:30 AM	0	3	9	0	12	3	8	12	0	23	15	41	0	0	56	24	76	2	0	102	193
07:45 AM	0	1	7	0	8	1	11	13	0	25	16	43	3	0	62	15	64	1	0	80	175
Total	0	8	31	0	39	6	31	44	0	81	45	160	3	0	208	83	230	8	0	321	649
08:00 AM	0	1	1	0	2	2	7	14	0	23	19	23	0	0	42	7	49	2	0	58	125
08:15 AM	0	6	2	0	8	0	3	6	0	9	15	20	0	0	35	9	36	2	0	47	99
08:30 AM	0	2	3	0	5	1	9	11	0	21	10	27	1	0	38	8	35	5	0	48	112
08:45 AM	0	1	2	0	3	2	6	8	0	16	16	24	0	0	40	2	25	3	0	30	89
Total	0	10	8	0	18	5	25	39	0	69	60	94	1	0	155	26	145	12	0	183	425
*** BREAK ***																					
04:00 PM	0	5	8	0	13	1	4	17	0	22	17	63	0	0	80	5	46	0	0	51	166
04:15 PM	0	0	10	0	10	6	5	13	0	24	20	71	0	0	91	5	39	2	0	46	171
04:30 PM	2	4	10	0	16	6	7	12	1	26	23	46	1	0	70	10	48	5	0	63	175
04:45 PM	0	3	8	0	11	2	5	12	0	19	17	52	0	0	69	5	43	3	0	51	150
Total	2	12	36	0	50	15	21	54	1	91	77	232	1	0	310	25	176	10	0	211	662
05:00 PM	0	3	11	0	14	0	6	20	0	26	16	66	0	0	82	4	27	8	0	39	161
05:15 PM	0	2	7	0	9	1	10	10	0	21	10	59	3	0	72	8	24	3	0	35	137
05:30 PM	0	6	7	0	13	4	6	6	0	16	10	75	0	0	85	5	20	1	0	26	140
05:45 PM	0	4	4	0	8	1	5	14	0	20	18	59	0	0	77	8	30	0	0	38	143
Total	0	15	29	0	44	6	27	50	0	83	54	259	3	0	316	25	101	12	0	138	581
Grand Total	2	45	104	0	151	32	104	187	1	324	236	745	8	0	989	159	652	42	0	853	2317
Apprch %	1.3	29.8	68.9	0		9.9	32.1	57.7	0.3		23.9	75.3	0.8	0		18.6	76.4	4.9	0		
Total %	0.1	1.9	4.5	0	6.5	1.4	4.5	8.1	0	14	10.2	32.2	0.3	0	42.7	6.9	28.1	1.8	0	36.8	
Cars	2	45	103	0	150	32	104	167	1	304	208	736	8	0	952	157	629	42	0	828	2234
% Cars	100	100	99	0	99.3	100	100	89.3	100	93.8	88.1	98.8	100	0	96.3	98.7	96.5	100	0	97.1	96.4
Trucks	0	0	1	0	1	0	0	20	0	20	27	7	0	0	34	1	8	0	0	9	64
% Trucks	0	0	1	0	0.7	0	0	10.7	0	6.2	11.4	0.9	0	0	3.4	0.6	1.2	0	0	1.1	2.8
School Buses	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	1	15	0	0	16	19
% School Buses	0	0	0	0	0	0	0	0	0	0	0.4	0.3	0	0	0.3	0.6	2.3	0	0	1.9	0.8

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-08
Site Code : 01014708
Start Date : 12/1/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

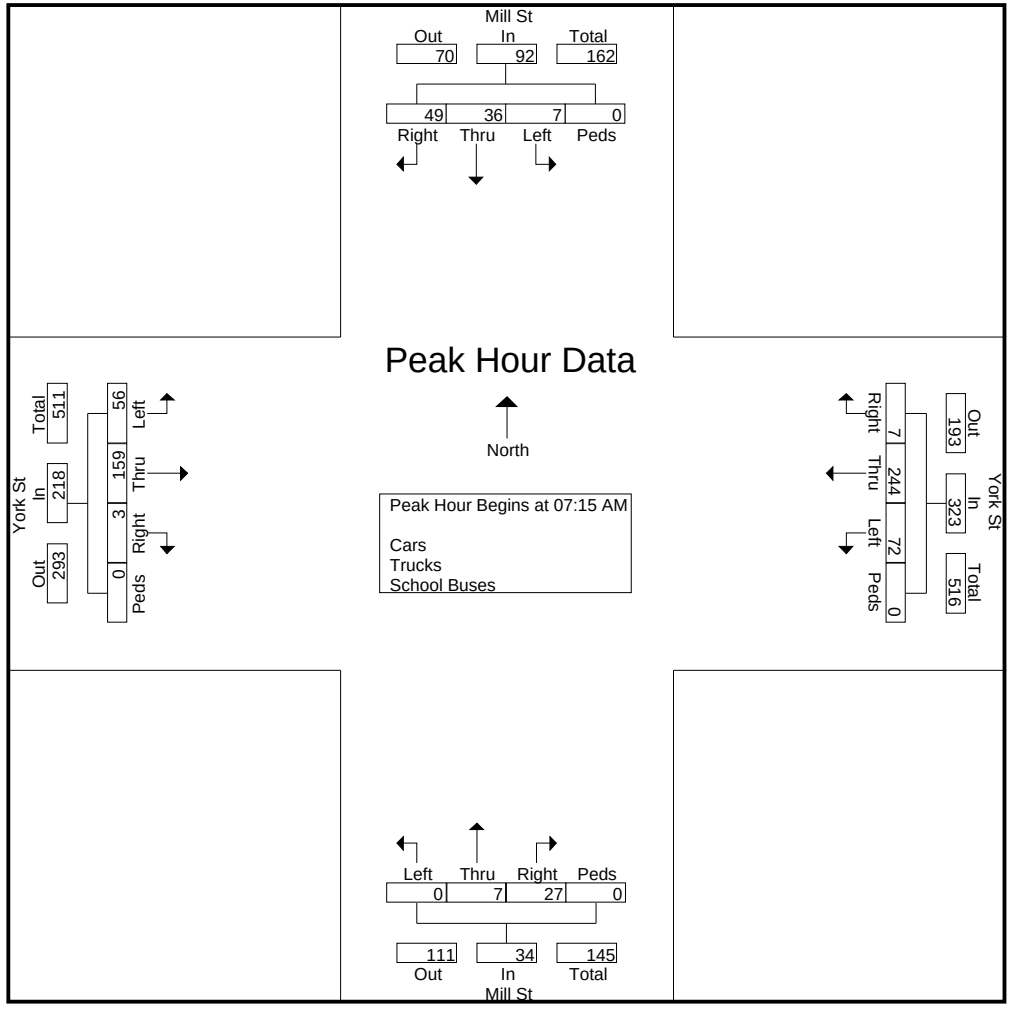
File Name : 10147-08
Site Code : 01014708
Start Date : 12/1/2010

	Mill St Northbound					Mill St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	2	**10**	0	**12**	1	10	10	0	21	6	**52**	0	0	58	**26**	55	**2**	0	83	174
07:30 AM	0	**3**	9	0	12	**3**	8	12	0	23	15	41	0	0	56	24	**76**	2	0	**102**	**193**
07:45 AM	0	1	7	0	8	1	**11**	13	0	**25**	16	43	**3**	0	**62**	15	64	1	0	80	175
08:00 AM	0	1	1	0	2	2	7	**14**	0	23	**19**	23	0	0	42	7	49	2	0	58	125
Total Volume	0	7	27	0	34	7	36	49	0	92	56	159	3	0	218	72	244	7	0	323	667
% App. Total	0	20.6	79.4	0		7.6	39.1	53.3	0		25.7	72.9	1.4	0		22.3	75.5	2.2	0		
PHF	.000	.583	.675	.000	.708	.583	.818	.875	.000	.920	.737	.764	.250	.000	.879	.692	.803	.875	.000	.792	.864

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-08
Site Code : 01014708
Start Date : 12/1/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

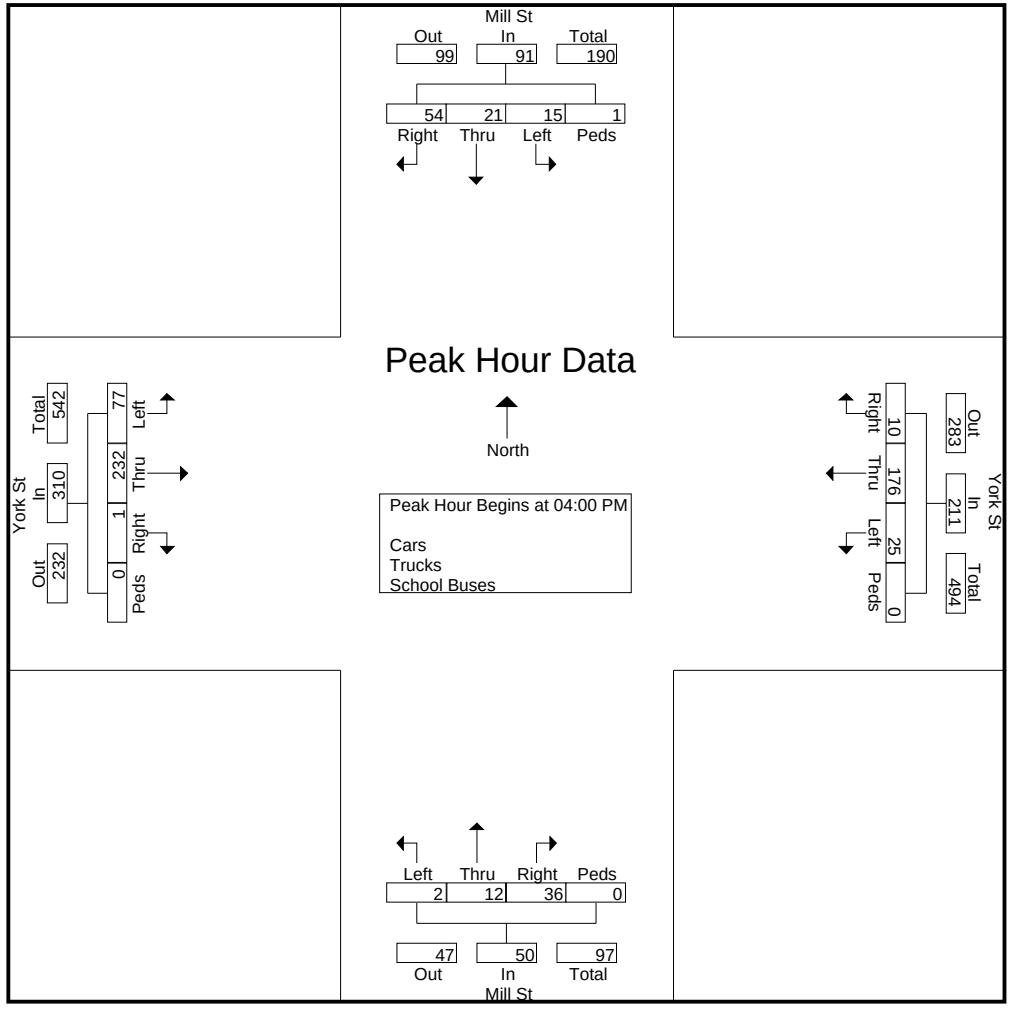
File Name : 10147-08
Site Code : 01014708
Start Date : 12/1/2010
Page No : 5

	Mill St Northbound					Mill St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	0	**5**	8	0	13	1	4	**17**	0	22	17	63	0	0	80	5	46	0	0	51	166
04:15 PM	0	0	**10**	0	10	**6**	5	13	0	24	20	**71**	0	0	**91**	5	39	2	0	46	171
04:30 PM	**2**	4	10	0	**16**	6	**7**	12	**1**	**26**	**23**	46	**1**	0	70	**10**	**48**	**5**	0	**63**	**175**
04:45 PM	0	3	8	0	11	2	5	12	0	19	17	52	0	0	69	5	43	3	0	51	150
Total Volume	2	12	36	0	50	15	21	54	1	91	77	232	1	0	310	25	176	10	0	211	662
% App. Total	4	24	72	0		16.5	23.1	59.3	1.1		24.8	74.8	0.3	0		11.8	83.4	4.7	0		
PHF	.250	.600	.900	.000	.781	.625	.750	.794	.250	.875	.837	.817	.250	.000	.852	.625	.917	.500	.000	.837	.946

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: T-0520
Counted By: LE
Weather: Cold
Other: S&S

File Name : 10147-08
Site Code : 01014708
Start Date : 12/1/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-04
Site Code : 01014704
Start Date : 11/17/2010

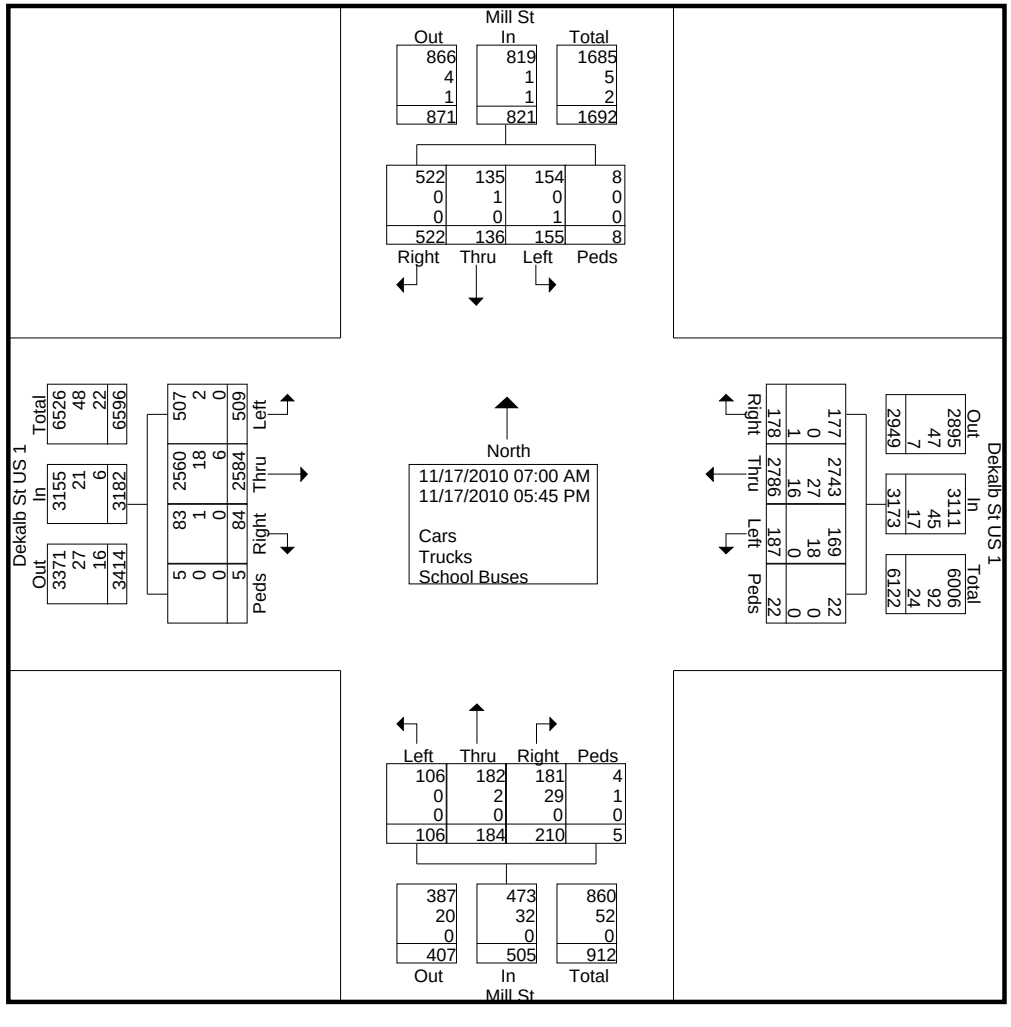
Groups Printed- Cars - Trucks - School Buses

	Mill St Northbound					Mill St Southbound					Dekalb St US 1 Eastbound					Dekalb St US 1 Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	2	10	2	15	4	5	21	0	30	20	89	1	0	110	11	187	8	0	206	361
07:15 AM	1	7	12	0	20	12	10	32	0	54	30	102	1	0	133	7	199	12	1	219	426
07:30 AM	3	6	10	0	19	4	13	47	0	64	31	107	1	0	139	14	241	9	0	264	486
07:45 AM	1	7	13	2	23	8	9	30	0	47	33	112	3	1	149	12	229	10	2	253	472
Total	6	22	45	4	77	28	37	130	0	195	114	410	6	1	531	44	856	39	3	942	1745
08:00 AM	3	7	5	0	15	8	11	22	0	41	34	107	8	0	149	18	168	13	2	201	406
08:15 AM	3	11	11	1	26	7	10	25	4	46	33	110	5	1	149	14	119	11	10	154	375
08:30 AM	9	19	10	0	38	5	6	34	0	45	20	108	4	1	133	11	144	4	1	160	376
08:45 AM	3	15	15	0	33	12	6	23	0	41	30	118	5	1	154	7	147	16	2	172	400
Total	18	52	41	1	112	32	33	104	4	173	117	443	22	3	585	50	578	44	15	687	1557
*** BREAK ***																					
04:00 PM	11	12	20	0	43	14	7	48	0	69	35	186	4	0	225	15	185	12	0	212	549
04:15 PM	14	12	11	0	37	9	11	41	0	61	39	197	6	0	242	15	175	14	1	205	545
04:30 PM	12	16	13	0	41	11	8	35	0	54	40	205	5	0	250	9	151	12	1	173	518
04:45 PM	9	11	20	0	40	14	9	32	0	55	32	209	7	1	249	10	158	9	1	178	522
Total	46	51	64	0	161	48	35	156	0	239	146	797	22	1	966	49	669	47	3	768	2134
05:00 PM	17	16	14	0	47	11	7	43	1	62	29	242	10	0	281	12	189	9	0	210	600
05:15 PM	8	16	17	0	41	13	11	41	3	68	37	247	10	0	294	13	173	16	0	202	605
05:30 PM	4	12	18	0	34	11	5	30	0	46	35	249	8	0	292	8	181	13	0	202	574
05:45 PM	7	15	11	0	33	12	8	18	0	38	31	196	6	0	233	11	140	10	1	162	466
Total	36	59	60	0	155	47	31	132	4	214	132	934	34	0	1100	44	683	48	1	776	2245
Grand Total	106	184	210	5	505	155	136	522	8	821	509	2584	84	5	3182	187	2786	178	22	3173	7681
Apprch %	21	36.4	41.6	1		18.9	16.6	63.6	1		16	81.2	2.6	0.2		5.9	87.8	5.6	0.7		
Total %	1.4	2.4	2.7	0.1	6.6	2	1.8	6.8	0.1	10.7	6.6	33.6	1.1	0.1	41.4	2.4	36.3	2.3	0.3	41.3	
Cars	106	182	181	4	473	154	135	522	8	819	507	2560	83	5	3155	169	2743	177	22	3111	7558
% Cars	100	98.9	86.2	80	93.7	99.4	99.3	100	100	99.8	99.6	99.1	98.8	100	99.2	90.4	98.5	99.4	100	98	98.4
Trucks	0	2	29	1	32	0	1	0	0	1	2	18	1	0	21	18	27	0	0	45	99
% Trucks	0	1.1	13.8	20	6.3	0	0.7	0	0	0.1	0.4	0.7	1.2	0	0.7	9.6	1	0	0	1.4	1.3
School Buses	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	0	16	1	0	17	24
% School Buses	0	0	0	0	0	0.6	0	0	0	0.1	0	0.2	0	0	0.2	0	0.6	0.6	0	0.5	0.3

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-04
Site Code : 01014704
Start Date : 11/17/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

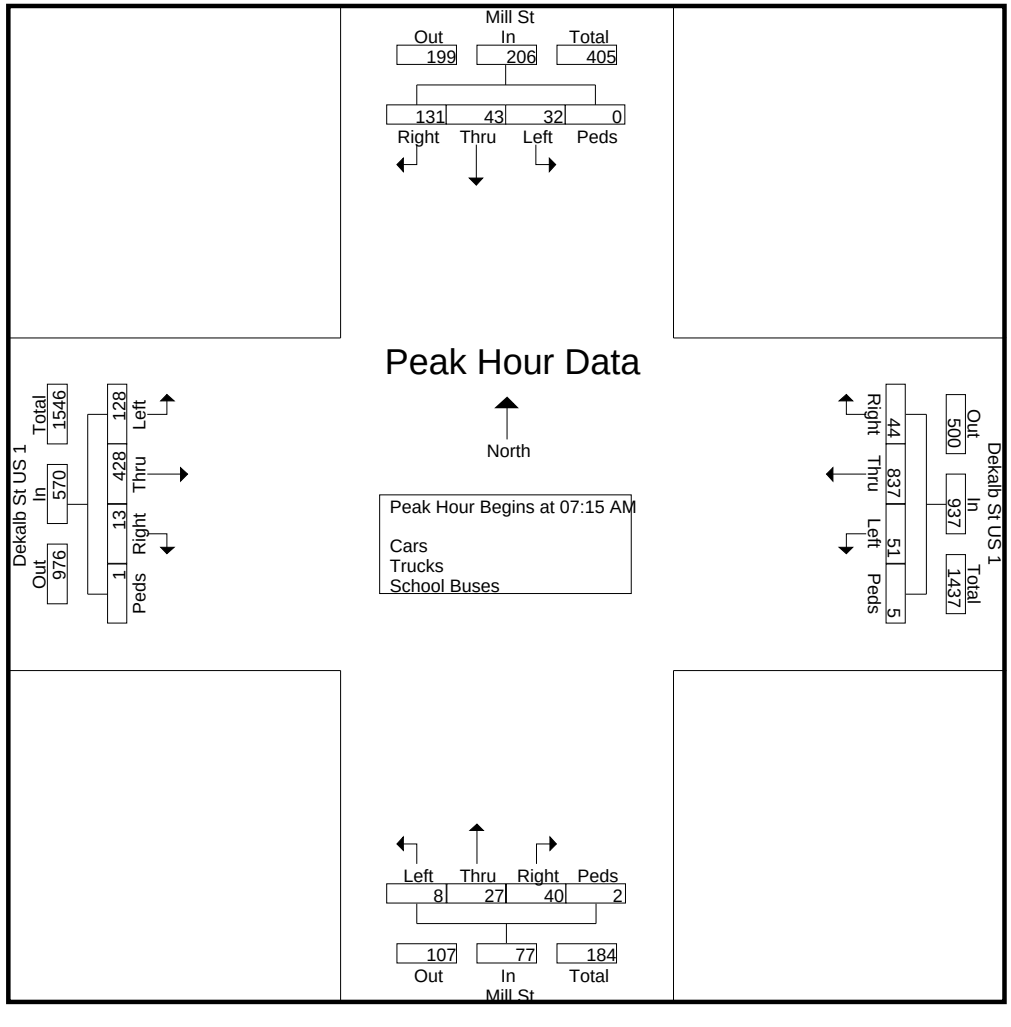
File Name : 10147-04
Site Code : 01014704
Start Date : 11/17/2010
Page No : 3

	Mill St Northbound					Mill St Southbound					Dekalb St US 1 Eastbound					Dekalb St US 1 Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	1	**7**	12	0	20	**12**	10	32	0	54	30	102	1	0	133	7	199	12	1	219	426
07:30 AM	**3**	6	10	0	19	4	**13**	**47**	0	**64**	31	107	1	0	139	14	**241**	9	0	**264**	**486**
07:45 AM	1	7	**13**	**2**	**23**	8	9	30	0	47	33	**112**	3	**1**	**149**	12	229	10	**2**	253	472
08:00 AM	3	7	5	0	15	8	11	22	0	41	**34**	107	**8**	0	149	**18**	168	**13**	2	201	406
Total Volume	8	27	40	2	77	32	43	131	0	206	128	428	13	1	570	51	837	44	5	937	1790
% App. Total	10.4	35.1	51.9	2.6		15.5	20.9	63.6	0		22.5	75.1	2.3	0.2		5.4	89.3	4.7	0.5		
PHF	.667	.964	.769	.250	.837	.667	.827	.697	.000	.805	.941	.955	.406	.250	.956	.708	.868	.846	.625	.887	.921

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-04
Site Code : 01014704
Start Date : 11/17/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

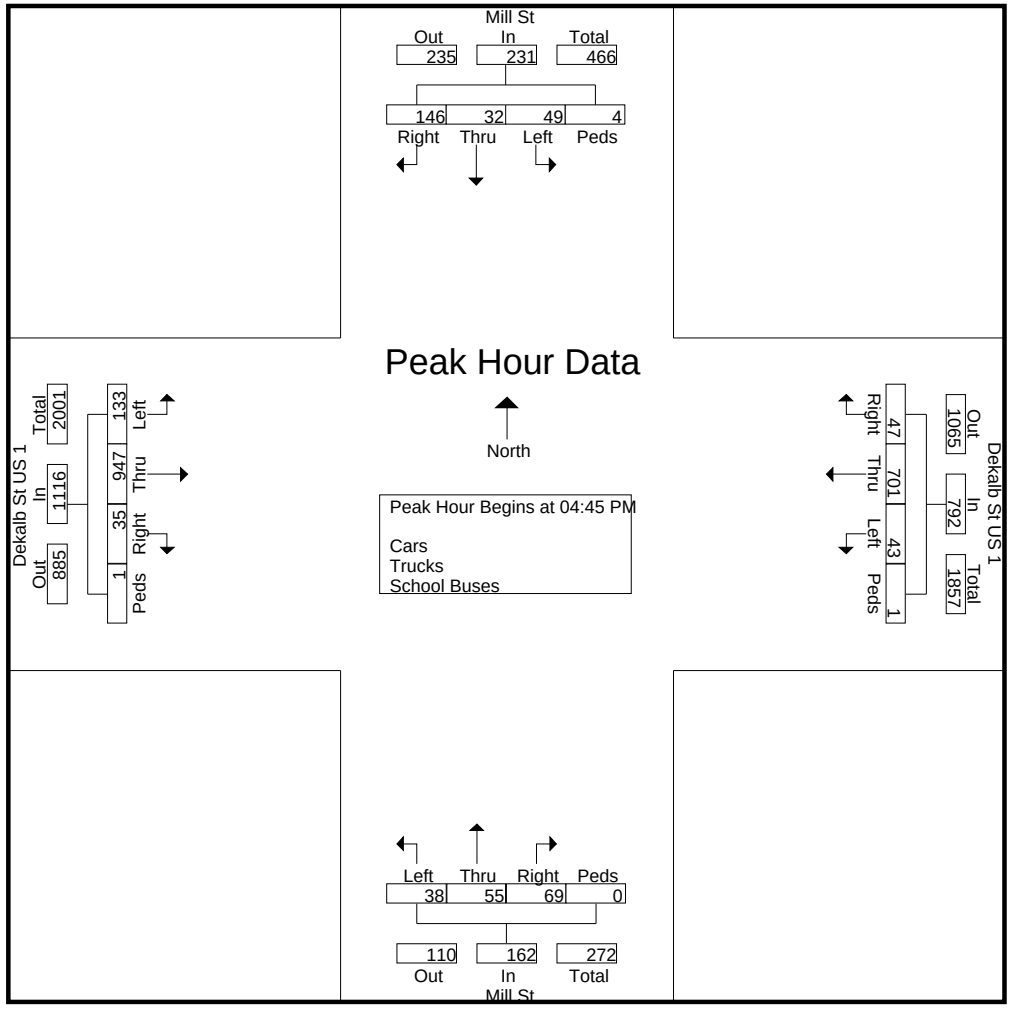
File Name : 10147-04
Site Code : 01014704
Start Date : 11/17/2010

	Mill St Northbound					Mill St Southbound					Dekalb St US 1 Eastbound					Dekalb St US 1 Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	9	11	**20**	0	40	**14**	9	32	0	55	32	209	7	**1**	249	10	158	9	**1**	178	522
05:00 PM	**17**	**16**	14	0	**47**	11	7	**43**	1	62	29	242	**10**	0	281	12	**189**	9	0	**210**	600
05:15 PM	8	16	17	0	41	13	**11**	41	**3**	**68**	**37**	247	10	0	**294**	**13**	173	**16**	0	202	**605**
05:30 PM	4	12	18	0	34	11	5	30	0	46	35	**249**	8	0	292	8	181	13	0	202	574
Total Volume	38	55	69	0	162	49	32	146	4	231	133	947	35	1	1116	43	701	47	1	792	2301
% App. Total	23.5	34	42.6	0		21.2	13.9	63.2	1.7		11.9	84.9	3.1	0.1		5.4	88.5	5.9	0.1		
PHF	.559	.859	.863	.000	.862	.875	.727	.849	.333	.849	.899	.951	.875	.250	.949	.827	.927	.734	.250	.943	.951

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-04
Site Code : 01014704
Start Date : 11/17/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-13
Site Code : 01014713
Start Date : 12/1/2010
Page No : 1

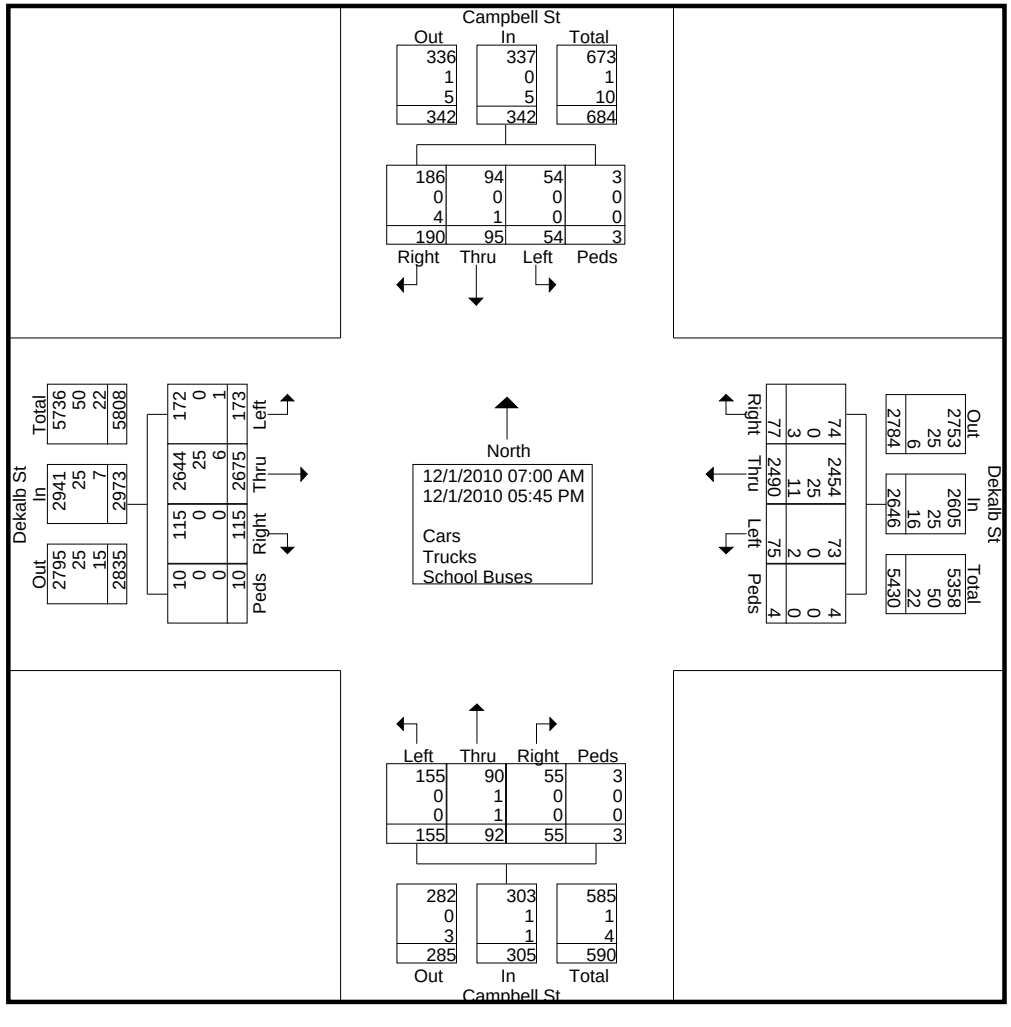
Groups Printed- Cars - Trucks - School Buses

	Campbell St Northbound					Campbell St Southbound					Dekalb St Eastbound					Dekalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	0	1	0	2	1	2	4	0	7	4	102	3	0	109	4	71	1	1	77	195
07:15 AM	2	3	1	0	6	1	3	14	0	18	3	128	4	0	135	9	138	4	0	151	310
07:30 AM	5	11	5	0	21	2	7	10	0	19	2	128	3	0	133	9	200	7	0	216	389
07:45 AM	9	7	5	0	21	1	5	9	0	15	11	154	5	1	171	3	189	4	0	196	403
Total	17	21	12	0	50	5	17	37	0	59	20	512	15	1	548	25	598	16	1	640	1297
08:00 AM	5	3	1	0	9	7	5	7	0	19	11	180	5	0	196	3	138	7	0	148	372
08:15 AM	3	6	1	0	10	5	3	6	0	14	7	143	4	0	154	3	112	4	0	119	297
08:30 AM	6	3	1	1	11	4	3	2	0	9	6	111	3	1	121	0	96	3	1	100	241
08:45 AM	1	3	0	1	5	2	7	7	0	16	13	153	9	0	175	1	140	4	0	145	341
Total	15	15	3	2	35	18	18	22	0	58	37	587	21	1	646	7	486	18	1	512	1251
*** BREAK ***																					
04:00 PM	18	7	5	0	30	4	4	23	0	31	8	201	13	2	224	7	181	3	0	191	476
04:15 PM	24	13	7	1	45	1	14	8	0	23	12	194	8	1	215	10	161	6	0	177	460
04:30 PM	11	2	6	0	19	1	10	12	2	25	13	214	10	1	238	6	182	2	1	191	473
04:45 PM	20	10	4	0	34	5	7	18	0	30	12	179	9	0	200	3	157	11	0	171	435
Total	73	32	22	1	128	11	35	61	2	109	45	788	40	4	877	26	681	22	1	730	1844
05:00 PM	17	9	2	0	28	6	9	28	0	43	23	223	15	1	262	1	217	7	1	226	559
05:15 PM	16	3	3	0	22	2	4	16	0	22	17	216	11	1	245	6	176	4	0	186	475
05:30 PM	13	8	9	0	30	7	4	13	1	25	15	192	8	1	216	8	178	8	0	194	465
05:45 PM	4	4	4	0	12	5	8	13	0	26	16	157	5	1	179	2	154	2	0	158	375
Total	50	24	18	0	92	20	25	70	1	116	71	788	39	4	902	17	725	21	1	764	1874
Grand Total	155	92	55	3	305	54	95	190	3	342	173	2675	115	10	2973	75	2490	77	4	2646	6266
Apprch %	50.8	30.2	18	1		15.8	27.8	55.6	0.9		5.8	90	3.9	0.3		2.8	94.1	2.9	0.2		
Total %	2.5	1.5	0.9	0	4.9	0.9	1.5	3	0	5.5	2.8	42.7	1.8	0.2	47.4	1.2	39.7	1.2	0.1	42.2	
Cars	155	90	55	3	303	54	94	186	3	337	172	2644	115	10	2941	73	2454	74	4	2605	6186
% Cars	100	97.8	100	100	99.3	100	98.9	97.9	100	98.5	99.4	98.8	100	100	98.9	97.3	98.6	96.1	100	98.5	98.7
Trucks	0	1	0	0	1	0	0	0	0	0	0	25	0	0	25	0	25	0	0	25	51
% Trucks	0	1.1	0	0	0.3	0	0	0	0	0	0	0.9	0	0	0.8	0	1	0	0	0.9	0.8
School Buses	0	1	0	0	1	0	1	4	0	5	1	6	0	0	7	2	11	3	0	16	29
% School Buses	0	1.1	0	0	0.3	0	1.1	2.1	0	1.5	0.6	0.2	0	0	0.2	2.7	0.4	3.9	0	0.6	0.5

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-13
Site Code : 01014713
Start Date : 12/1/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

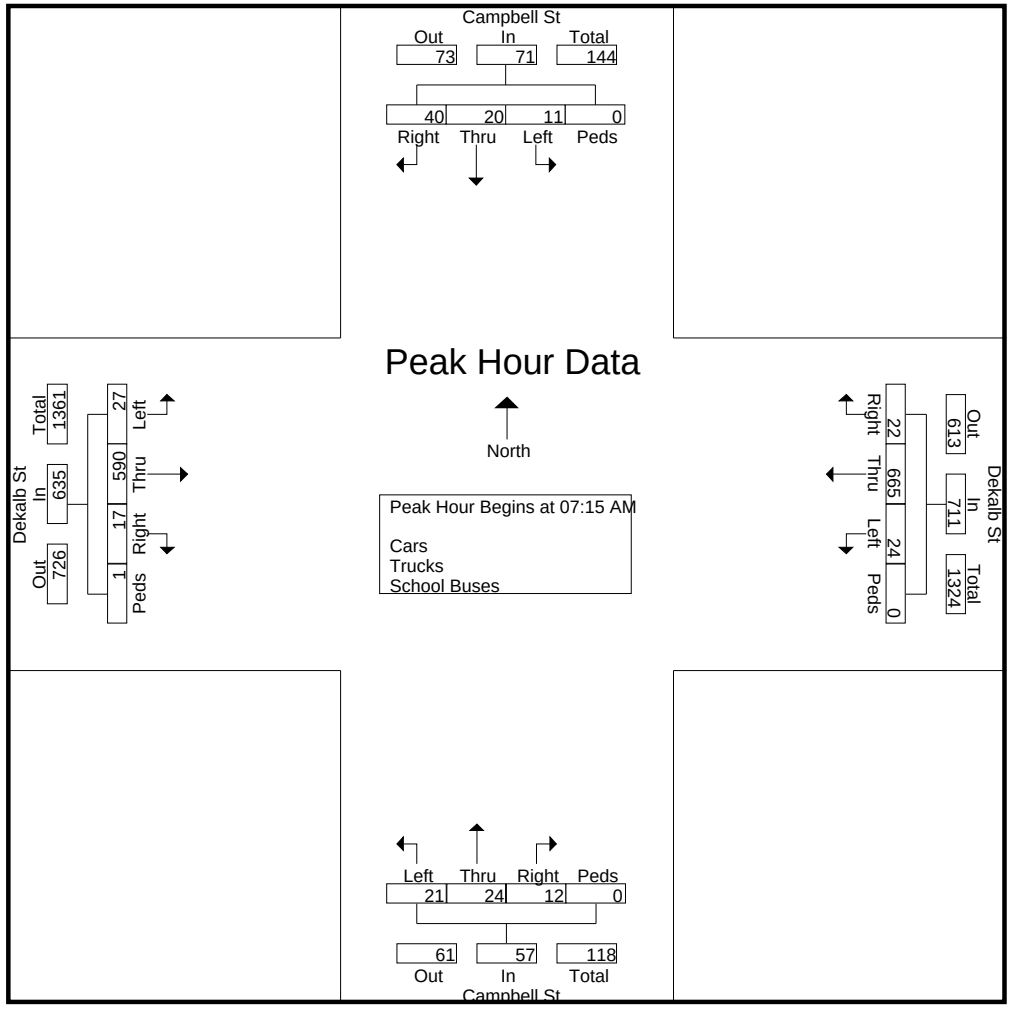
File Name : 10147-13
Site Code : 01014713
Start Date : 12/1/2010

	Campbell St Northbound					Campbell St Southbound					Dekalb St Eastbound					Dekalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	2	3	1	0	6	1	3	**14**	0	18	3	128	4	0	135	**9**	138	4	0	151	310
07:30 AM	5	**11**	**5**	0	**21**	2	**7**	10	0	**19**	2	128	3	0	133	9	**200**	**7**	0	**216**	389
07:45 AM	**9**	7	5	0	21	1	5	9	0	15	**11**	154	**5**	**1**	171	3	189	4	0	196	**403**
08:00 AM	5	3	1	0	9	**7**	5	7	0	19	11	**180**	5	0	**196**	3	138	7	0	148	372
Total Volume	21	24	12	0	57	11	20	40	0	71	27	590	17	1	635	24	665	22	0	711	1474
% App. Total	36.8	42.1	21.1	0		15.5	28.2	56.3	0		4.3	92.9	2.7	0.2		3.4	93.5	3.1	0		
PHF	.583	.545	.600	.000	.679	.393	.714	.714	.000	.934	.614	.819	.850	.250	.810	.667	.831	.786	.000	.823	.914

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-13
Site Code : 01014713
Start Date : 12/1/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

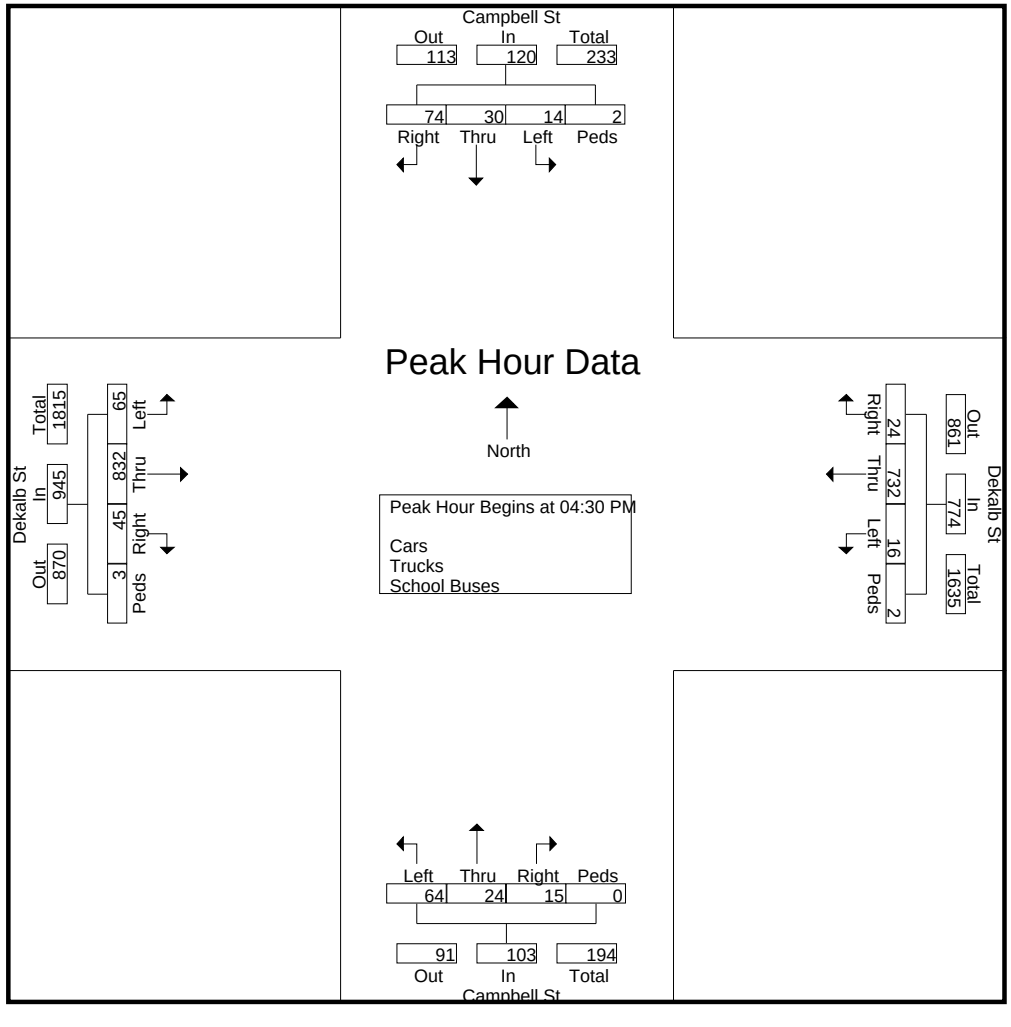
File Name : 10147-13
Site Code : 01014713
Start Date : 12/1/2010

	Campbell St Northbound					Campbell St Southbound					Dekalb St Eastbound					Dekalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	11	2	**6**	0	19	1	**10**	12	**2**	25	13	214	10	**1**	238	**6**	182	2	**1**	191	473
04:45 PM	**20**	**10**	4	0	**34**	5	7	18	0	30	12	179	9	0	200	3	157	**11**	0	171	435
05:00 PM	17	9	2	0	28	**6**	9	**28**	0	**43**	**23**	**223**	**15**	1	**262**	1	**217**	7	1	**226**	**559**
05:15 PM	16	3	3	0	22	2	4	16	0	22	17	216	11	1	245	6	176	4	0	186	475
Total Volume	64	24	15	0	103	14	30	74	2	120	65	832	45	3	945	16	732	24	2	774	1942
% App. Total	62.1	23.3	14.6	0		11.7	25	61.7	1.7		6.9	88	4.8	0.3		2.1	94.6	3.1	0.3		
PHF	.800	.600	.625	.000	.757	.583	.750	.661	.250	.698	.707	.933	.750	.750	.902	.667	.843	.545	.500	.856	.869

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-13
Site Code : 01014713
Start Date : 12/1/2010
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-12
Site Code : 01014712
Start Date : 11/30/2010

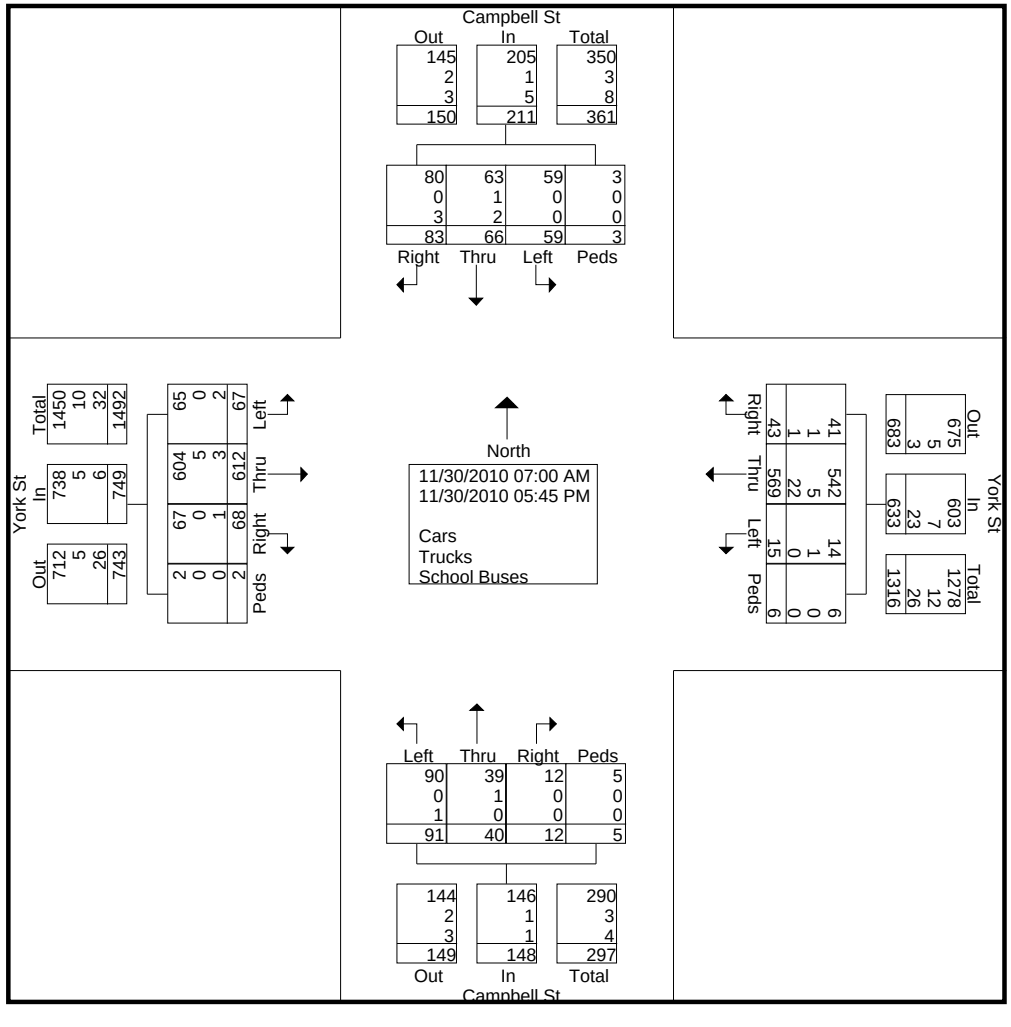
Groups Printed- Cars - Trucks - School Buses

	Campbell St Northbound					Campbell St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	2	0	0	5	1	2	0	0	3	0	19	2	0	21	0	24	0	0	24	53
07:15 AM	4	4	1	0	9	0	3	6	0	9	3	38	5	1	47	1	32	2	1	36	101
07:30 AM	7	1	0	0	8	3	5	17	0	25	11	65	6	0	82	1	75	0	0	76	191
07:45 AM	8	3	1	0	12	2	1	13	0	16	17	63	7	0	87	0	66	4	1	71	186
Total	22	10	2	0	34	6	11	36	0	53	31	185	20	1	237	2	197	6	2	207	531
08:00 AM	3	0	0	0	3	4	5	1	0	10	1	31	3	0	35	2	42	5	1	50	98
08:15 AM	3	0	0	0	3	3	2	0	0	5	1	14	1	0	16	0	18	4	0	22	46
08:30 AM	4	2	2	0	8	1	0	2	0	3	1	16	2	0	19	1	22	1	1	25	55
08:45 AM	2	4	1	0	7	3	4	2	0	9	1	19	1	0	21	0	21	4	0	25	62
Total	12	6	3	0	21	11	11	5	0	27	4	80	7	0	91	3	103	14	2	122	261
*** BREAK ***																					
04:00 PM	8	6	0	0	14	7	6	8	0	21	4	52	5	0	61	1	46	4	0	51	147
04:15 PM	5	4	3	1	13	4	8	8	1	21	4	39	4	0	47	2	39	4	0	45	126
04:30 PM	7	4	0	0	11	4	5	7	1	17	6	35	3	0	44	0	30	1	0	31	103
04:45 PM	11	1	1	0	13	7	2	5	0	14	0	39	4	0	43	2	32	1	0	35	105
Total	31	15	4	1	51	22	21	28	2	73	14	165	16	0	195	5	147	10	0	162	481
05:00 PM	7	4	0	1	12	5	9	7	0	21	2	47	6	0	55	3	38	4	0	45	133
05:15 PM	5	3	2	1	11	7	4	3	0	14	5	63	7	0	75	0	33	2	1	36	136
05:30 PM	9	1	0	2	12	6	2	2	0	10	9	39	6	1	55	1	31	4	1	37	114
05:45 PM	5	1	1	0	7	2	8	2	1	13	2	33	6	0	41	1	20	3	0	24	85
Total	26	9	3	4	42	20	23	14	1	58	18	182	25	1	226	5	122	13	2	142	468
Grand Total	91	40	12	5	148	59	66	83	3	211	67	612	68	2	749	15	569	43	6	633	1741
Apprch %	61.5	27	8.1	3.4		28	31.3	39.3	1.4		8.9	81.7	9.1	0.3		2.4	89.9	6.8	0.9		
Total %	5.2	2.3	0.7	0.3	8.5	3.4	3.8	4.8	0.2	12.1	3.8	35.2	3.9	0.1	43	0.9	32.7	2.5	0.3	36.4	
Cars	90	39	12	5	146	59	63	80	3	205	65	604	67	2	738	14	542	41	6	603	1692
% Cars	98.9	97.5	100	100	98.6	100	95.5	96.4	100	97.2	97	98.7	98.5	100	98.5	93.3	95.3	95.3	100	95.3	97.2
Trucks	0	1	0	0	1	0	1	0	0	1	0	5	0	0	5	1	5	1	0	7	14
% Trucks	0	2.5	0	0	0.7	0	1.5	0	0	0.5	0	0.8	0	0	0.7	6.7	0.9	2.3	0	1.1	0.8
School Buses	1	0	0	0	1	0	2	3	0	5	2	3	1	0	6	0	22	1	0	23	35
% School Buses	1.1	0	0	0	0.7	0	3	3.6	0	2.4	3	0.5	1.5	0	0.8	0	3.9	2.3	0	3.6	2

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-12
Site Code : 01014712
Start Date : 11/30/2010
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

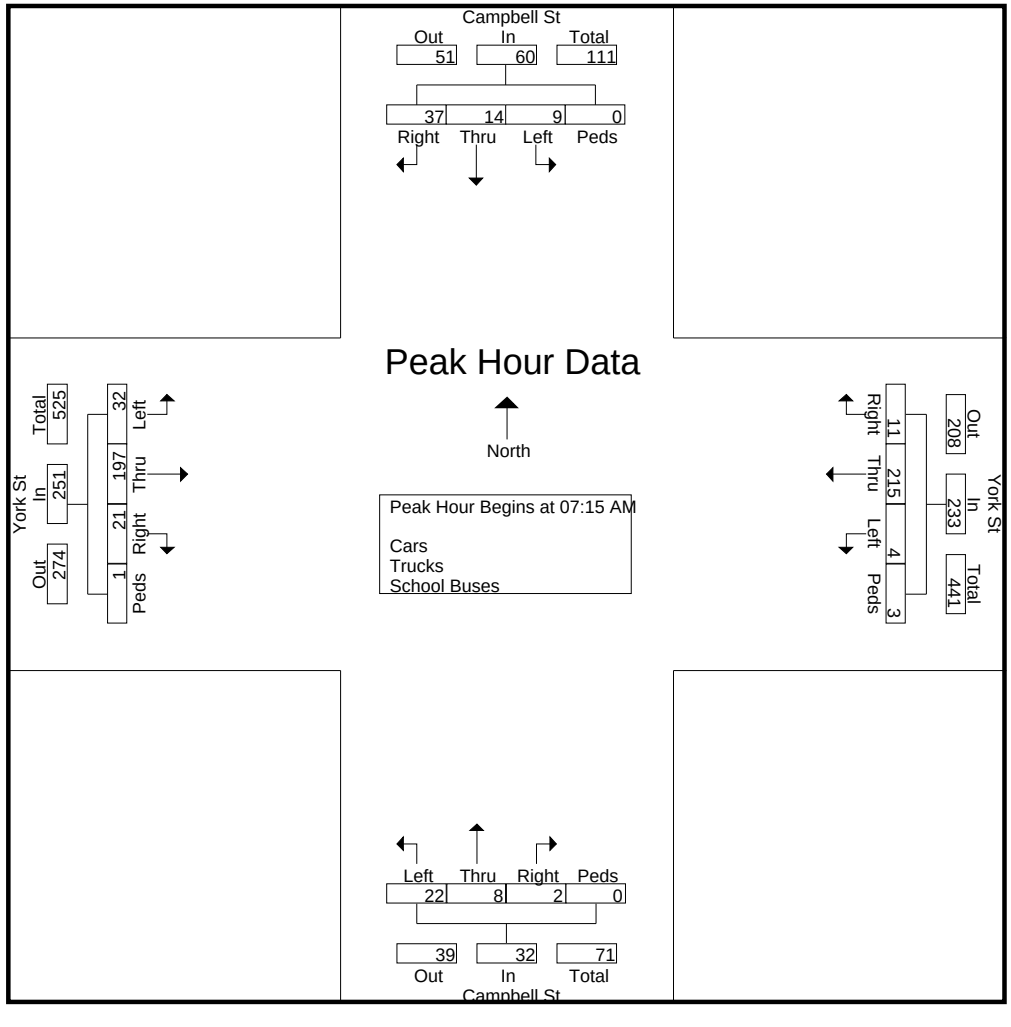
File Name : 10147-12
Site Code : 01014712
Start Date : 11/30/2010

	Campbell St Northbound					Campbell St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	4	**4**	**1**	0	9	0	3	6	0	9	3	38	5	**1**	47	1	32	2	**1**	36	101
07:30 AM	7	1	0	0	8	3	**5**	**17**	0	**25**	11	**65**	6	0	82	1	**75**	0	0	**76**	**191**
07:45 AM	**8**	3	1	0	**12**	2	1	13	0	16	**17**	63	**7**	0	**87**	0	66	4	1	71	186
08:00 AM	3	0	0	0	3	**4**	5	1	0	10	1	31	3	0	35	**2**	42	**5**	1	50	98
Total Volume	22	8	2	0	32	9	14	37	0	60	32	197	21	1	251	4	215	11	3	233	576
% App. Total	68.8	25	6.2	0		15	23.3	61.7	0		12.7	78.5	8.4	0.4		1.7	92.3	4.7	1.3		
PHF	.688	.500	.500	.000	.667	.563	.700	.544	.000	.600	.471	.758	.750	.250	.721	.500	.717	.550	.750	.766	.754

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-12
Site Code : 01014712
Start Date : 11/30/2010
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

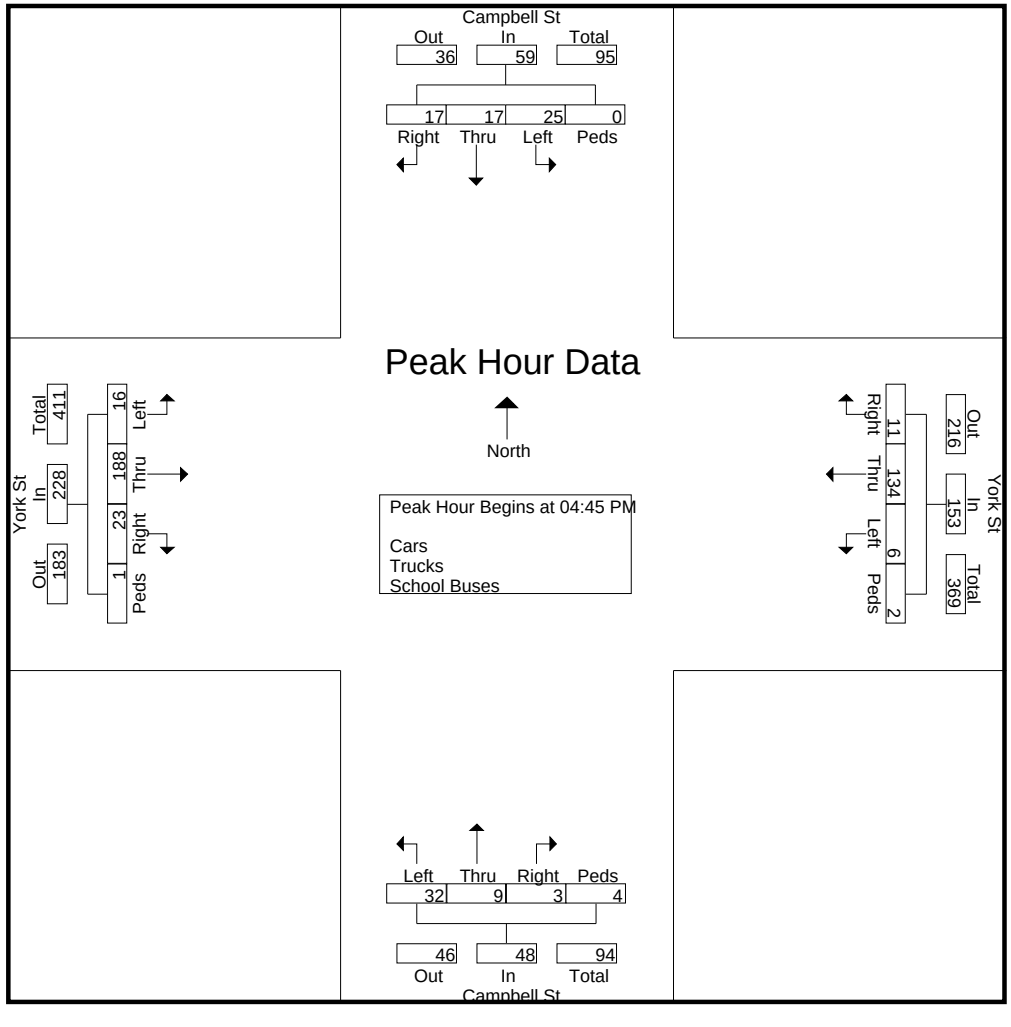
File Name : 10147-12
Site Code : 01014712
Start Date : 11/30/2010

	Campbell St Northbound					Campbell St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**11**	1	1	0	**13**	**7**	2	5	0	14	0	39	4	0	43	2	32	1	0	35	105
05:00 PM	7	**4**	0	1	12	5	**9**	**7**	0	**21**	2	47	6	0	55	**3**	**38**	**4**	0	**45**	133
05:15 PM	5	3	**2**	1	11	7	4	3	0	14	5	**63**	**7**	0	**75**	0	33	2	**1**	36	**136**
05:30 PM	9	1	0	**2**	12	6	2	2	0	10	**9**	39	6	**1**	55	1	31	4	1	37	114
Total Volume	32	9	3	4	48	25	17	17	0	59	16	188	23	1	228	6	134	11	2	153	488
% App. Total	66.7	18.8	6.2	8.3		42.4	28.8	28.8	0		7	82.5	10.1	0.4		3.9	87.6	7.2	1.3		
PHF	.727	.563	.375	.500	.923	.893	.472	.607	.000	.702	.444	.746	.821	.250	.760	.500	.882	.688	.500	.850	.897

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Counter: D4-4422
Technician : WB
Weather: Fair
Other: S&S

File Name : 10147-12
Site Code : 01014712
Start Date : 11/30/2010
Page No : 6



Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
11/30/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	3	115	27	0	9	1	0	3	2	0	0	0	0	0	160
11:00	0	167	55	0	3	0	0	1	4	1	0	0	0	0	231
12 PM	2	194	35	0	5	2	0	3	3	0	0	0	0	0	244
13:00	2	190	39	1	11	0	0	1	3	0	0	0	0	0	247
14:00	0	193	38	0	9	1	0	1	1	0	0	0	0	0	243
15:00	1	254	62	0	18	2	0	2	2	0	0	0	0	0	341
16:00	1	223	49	1	8	0	0	0	2	0	0	0	0	0	284
17:00	2	252	47	1	6	2	0	0	0	0	0	0	0	0	310
18:00	1	210	38	0	0	0	0	0	0	0	0	0	0	0	249
19:00	0	103	13	0	2	1	0	0	1	0	0	0	0	0	120
20:00	0	98	17	0	0	0	0	0	0	0	0	0	0	0	115
21:00	0	50	9	0	0	1	0	0	0	0	0	0	0	0	60
22:00	0	61	2	0	0	0	0	0	1	0	0	0	0	0	64
23:00	0	29	3	0	0	0	0	0	0	0	0	0	0	0	32
Total	12	2139	434	3	71	10	0	11	19	1	0	0	0	0	2700
Percent	0.4%	79.2%	16.1%	0.1%	2.6%	0.4%	0.0%	0.4%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00		10:00	10:00		10:00	11:00	11:00					
Vol.	3	167	55		9	1		3	4	1					
PM Peak	12:00	15:00	15:00	13:00	15:00	12:00		12:00	12:00						
Vol.	2	254	62	1	18	2		3	3						

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12/1/10	0	16	3	1	0	0	0	0	1	0	0	0	0	0	21
01:00	0	13	1	0	0	0	0	0	0	0	0	0	0	0	14
02:00	0	9	2	0	0	0	0	0	0	0	0	0	0	0	11
03:00	0	10	0	0	0	0	0	0	0	0	0	0	0	0	10
04:00	0	13	2	0	0	0	0	0	0	0	0	0	0	0	15
05:00	1	38	13	0	2	2	0	0	1	0	0	0	0	0	57
06:00	0	184	27	1	3	0	0	1	1	0	0	0	0	0	217
07:00	3	168	33	0	10	0	0	1	3	0	0	0	0	0	218
08:00	0	142	41	1	2	1	0	1	1	0	0	0	0	0	189
09:00	1	123	38	2	14	3	0	1	2	0	0	0	0	0	184
10:00	0	145	30	0	15	0	0	0	2	2	0	0	0	0	194
11:00	0	162	40	0	8	3	0	0	1	0	0	0	0	0	214
12 PM	0	216	39	0	9	1	0	1	6	0	0	0	0	0	272
13:00	4	211	38	0	11	2	0	0	3	0	0	0	0	0	269
14:00	3	191	38	0	8	1	0	2	4	0	0	0	0	0	247
15:00	4	296	59	1	10	2	0	3	1	0	0	0	0	0	376
16:00	4	245	58	1	10	1	0	3	0	0	1	0	0	0	323
17:00	3	245	59	0	7	0	0	1	1	0	0	0	0	0	316
18:00	3	218	40	0	2	0	0	0	0	0	0	0	0	0	263
19:00	3	113	25	0	1	0	0	0	0	0	0	0	0	0	142
20:00	0	94	10	0	2	0	0	0	1	0	0	0	0	0	107
21:00	0	64	5	0	0	0	0	0	0	0	0	0	0	0	69
22:00	0	40	5	0	0	0	0	0	1	0	0	0	0	0	46
23:00	1	38	3	0	0	0	0	0	1	0	0	0	0	0	43
Total	30	2994	609	7	114	16	0	14	30	2	1	0	0	0	3817
Percent	0.8%	78.4%	16.0%	0.2%	3.0%	0.4%	0.0%	0.4%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	06:00	08:00	09:00	10:00	09:00		06:00	07:00	10:00					
Vol.	3	184	41	2	15	3		1	3	2					
PM Peak	13:00	15:00	15:00	15:00	13:00	13:00		15:00	12:00		16:00				
Vol.	4	296	59	1	11	2		3	6		1				

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12/2/10	0	21	1	1	0	0	0	0	0	0	0	0	0	0	23
01:00	0	11	0	0	0	0	0	0	0	0	0	0	0	0	11
02:00	0	9	0	0	0	0	0	0	0	0	0	0	0	0	9
03:00	0	7	0	0	0	0	1	0	0	0	0	0	0	0	8
04:00	0	14	1	0	1	0	0	0	0	0	0	0	0	0	16
05:00	0	36	13	0	3	0	0	0	1	0	0	0	0	0	53
06:00	0	182	33	1	4	1	0	0	1	0	0	0	0	0	222
07:00	1	175	28	0	8	3	0	0	3	0	0	0	0	0	218
08:00	1	132	31	0	7	1	0	2	6	0	0	0	0	0	180
09:00	0	62	12	0	4	1	0	0	1	0	0	0	0	0	80
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	649	119	2	27	6	1	2	12	0	0	0	0	0	820
Percent	0.2%	79.1%	14.5%	0.2%	3.3%	0.7%	0.1%	0.2%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	06:00	06:00	00:00	07:00	07:00	03:00	08:00	08:00						
Vol.	1	182	33	1	8	3	1	2	6						
PM Peak Vol.															

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12/3/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Percent	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.		13:00 1													
Grand Total	44	5783	1162	12	212	32	1	27	61	3	1	0	0	0	7338
Percent	0.6%	78.8%	15.8%	0.2%	2.9%	0.4%	0.0%	0.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
11/30/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	2	74	53	0	14	1	0	1	1	0	0	0	0	0	146
11:00	1	123	64	1	15	2	0	3	2	0	0	0	2	0	213
12 PM	3	134	62	0	20	4	0	2	5	0	0	0	0	0	230
13:00	4	127	64	3	16	1	0	3	5	1	0	0	0	0	224
14:00	1	145	69	1	21	0	0	4	3	0	0	0	0	0	244
15:00	3	231	87	2	28	2	0	4	0	0	0	0	0	0	357
16:00	2	206	118	0	20	3	0	2	3	0	0	0	0	0	354
17:00	4	187	100	4	20	4	0	0	2	0	0	0	0	0	321
18:00	3	180	67	0	17	1	0	1	0	0	0	0	0	0	269
19:00	6	112	65	1	9	3	0	0	1	0	0	0	0	0	197
20:00	2	77	34	1	7	0	0	1	1	0	0	0	0	0	123
21:00	1	59	29	0	2	0	0	0	0	0	0	0	0	0	91
22:00	1	44	25	0	2	0	0	0	0	0	0	0	0	0	72
23:00	0	30	10	0	2	0	0	0	0	0	0	0	0	0	42
Total	33	1729	847	13	193	21	0	21	23	1	0	0	2	0	2883
Percent	1.1%	60.0%	29.4%	0.5%	6.7%	0.7%	0.0%	0.7%	0.8%	0.0%	0.0%	0.0%	0.1%	0.0%	
AM Peak	10:00	11:00	11:00	11:00	11:00	11:00		11:00	11:00				11:00		
Vol.	2	123	64	1	15	2		3	2				2		
PM Peak	19:00	15:00	16:00	17:00	15:00	12:00		14:00	12:00	13:00					
Vol.	6	231	118	4	28	4		4	5	1					

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12/1/10	1	16	6	0	0	0	0	0	0	0	0	0	0	0	23
01:00	0	7	3	1	0	0	0	0	0	0	0	0	0	0	11
02:00	0	12	3	0	0	0	0	0	0	0	0	0	0	0	15
03:00	0	4	2	0	0	1	0	0	1	0	0	0	0	0	8
04:00	0	12	4	0	2	0	0	0	0	0	0	0	0	0	18
05:00	0	26	11	0	3	0	0	0	2	0	0	0	0	0	42
06:00	1	64	29	1	12	1	0	0	1	0	0	0	0	0	109
07:00	3	201	106	1	12	2	0	2	3	0	0	0	0	0	330
08:00	1	98	62	2	18	2	0	2	2	0	0	0	0	0	187
09:00	2	75	40	1	14	0	0	2	5	0	0	0	0	0	139
10:00	0	82	58	2	20	0	0	3	1	0	0	0	0	0	166
11:00	1	109	58	1	22	2	0	1	3	0	0	0	0	0	197
12 PM	5	114	53	0	24	1	0	1	1	0	0	0	0	0	199
13:00	3	143	69	2	25	1	0	2	1	0	0	0	0	0	246
14:00	2	171	75	1	18	1	0	2	2	0	0	0	0	0	272
15:00	3	207	81	4	34	0	0	5	1	0	0	0	0	0	335
16:00	4	219	98	3	23	2	0	3	3	0	0	0	1	0	356
17:00	3	252	117	0	30	5	0	0	2	0	0	0	0	0	409
18:00	2	149	71	0	14	1	0	2	0	0	0	0	0	0	239
19:00	1	121	59	0	14	0	0	0	1	0	0	0	0	0	196
20:00	2	86	35	1	11	0	0	0	0	0	0	0	0	0	135
21:00	1	64	24	0	5	1	0	0	0	0	0	0	0	0	95
22:00	0	38	12	0	2	0	0	0	0	0	0	0	0	0	52
23:00	1	31	12	0	1	0	0	0	0	0	0	0	0	0	45
Total	36	2301	1088	20	304	20	0	25	29	0	0	0	1	0	3824
Percent	0.9%	60.2%	28.5%	0.5%	7.9%	0.5%	0.0%	0.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	08:00	11:00	07:00		10:00	09:00						
Vol.	3	201	106	2	22	2		3	5						
PM Peak	12:00	17:00	17:00	15:00	15:00	17:00		15:00	16:00				16:00		
Vol.	5	252	117	4	34	5		5	3				1		

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12/2/10	0	12	6	0	0	0	0	0	1	0	0	0	0	0	19
01:00	1	5	1	0	2	0	0	0	0	0	0	0	0	0	9
02:00	0	9	2	0	1	0	0	0	0	0	0	0	0	0	12
03:00	0	1	4	0	0	0	0	0	0	0	0	0	0	0	5
04:00	0	14	6	0	1	0	0	0	1	0	0	0	0	0	22
05:00	0	20	10	0	6	0	0	0	0	0	0	0	0	0	36
06:00	3	55	24	1	17	1	0	4	2	0	0	0	0	0	107
07:00	1	202	84	0	24	2	0	1	0	0	0	0	0	0	314
08:00	0	104	49	3	25	0	1	5	2	0	0	0	0	0	189
09:00	2	39	22	1	5	0	0	0	0	0	0	0	0	0	69
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	7	462	208	5	81	3	1	10	6	0	0	0	0	0	783
Percent	0.9%	59.0%	26.6%	0.6%	10.3%	0.4%	0.1%	1.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	08:00	08:00	07:00	08:00	08:00	06:00						
Vol.	3	202	84	3	25	2	1	5	2						
PM Peak		16:00													
Vol.		1													

Installed By: BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: 14 A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
12/3/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Percent	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.		13:00 1													
Grand Total	76	4493	2143	38	578	44	1	56	58	1	0	0	3	0	7491
Percent	1.0%	60.0%	28.6%	0.5%	7.7%	0.6%	0.0%	0.7%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start	1	36	41	46	51	56	61	66	71	76	81	86	91	96		Pace	Number
Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999	Total	Speed	in Pace
11/30/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	135	24	3	0	0	0	0	0	0	0	0	0	0	0	162	1-10	40
11:00	**157**	**65**	**9**	0	0	0	0	0	0	0	0	0	0	0	**231**	31-40	85
12 PM	162	69	**13**	0	0	0	0	0	0	0	0	0	0	0	244	31-40	89
13:00	178	66	5	0	0	0	0	0	0	0	0	0	0	0	249	31-40	91
14:00	161	74	10	0	0	0	0	0	0	0	0	0	0	0	245	31-40	94
15:00	**278**	56	8	0	0	0	0	0	0	0	0	0	0	0	**342**	31-40	94
16:00	218	58	10	0	0	0	0	0	0	0	0	0	0	0	286	31-40	88
17:00	235	**75**	2	0	0	0	0	0	0	0	0	0	0	0	312	31-40	105
18:00	186	56	8	0	0	0	0	0	0	0	0	0	0	0	250	31-40	81
19:00	101	19	1	0	0	0	0	0	0	0	0	0	0	0	121	1-10	30
20:00	89	25	2	0	0	0	0	0	0	0	0	0	0	0	116	31-40	35
21:00	56	5	0	0	0	0	0	0	0	0	0	0	0	0	61	1-10	20
22:00	48	15	1	0	0	0	0	0	0	0	0	0	0	0	64	1-10	20
23:00	27	4	1	0	0	0	0	0	0	0	0	0	0	0	32	1-10	10
Total	2031	611	73	0	0	0	0	0	0	0	0	0	0	0	2715		
Percent	74.8%	22.5%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00												11:00		
Vol.	157	65	9												231		
PM Peak	15:00	17:00	12:00												15:00		
Vol.	278	75	13												342		

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
12/1/10	14	5	2	0	0	0	0	0	0	0	0	0	0	0	21	1-10	10
01:00	11	2	1	0	0	0	0	0	0	0	0	0	0	0	14	1-10	10
02:00	10	1	0	0	0	0	0	0	0	0	0	0	0	0	11	1-10	10
03:00	6	4	0	0	0	0	0	0	0	0	0	0	0	0	10	*	6
04:00	12	3	0	0	0	0	0	0	0	0	0	0	0	0	15	1-10	10
05:00	38	17	2	0	0	0	0	0	0	0	0	0	0	0	57	31-40	22
06:00	134	**72**	10	**2**	0	0	0	0	0	0	0	0	0	0	218	31-40	87
07:00	**167**	48	3	1	0	0	0	0	0	0	0	0	0	0	**219**	31-40	68
08:00	129	52	8	0	0	0	0	0	0	0	0	0	0	0	189	31-40	67
09:00	115	57	11	2	0	0	0	0	0	0	0	0	0	0	185	31-40	72
10:00	131	60	4	0	0	0	0	0	0	0	0	0	0	0	195	31-40	75
11:00	134	69	**12**	1	**1**	0	0	0	0	0	0	0	0	0	217	31-40	84
12 PM	166	**89**	18	1	0	0	0	0	0	0	0	0	0	0	274	31-40	109
13:00	163	85	**22**	**2**	0	0	0	0	0	0	0	0	0	0	272	33-42	107
14:00	160	82	5	1	0	0	0	0	0	0	0	0	0	0	248	31-40	102
15:00	**296**	66	14	1	0	0	0	0	0	0	0	0	0	0	**377**	31-40	106
16:00	260	59	4	1	0	0	0	0	0	0	0	0	0	0	324	31-40	94
17:00	272	42	2	0	0	0	0	0	0	0	0	0	0	0	316	1-10	80
18:00	191	63	10	0	0	0	0	0	0	0	0	0	0	0	264	31-40	88
19:00	108	31	4	0	0	0	0	0	0	0	0	0	0	0	143	31-40	46
20:00	85	21	1	0	0	0	0	0	0	0	0	0	0	0	107	31-40	31
21:00	48	18	2	1	0	0	0	0	0	0	0	0	0	0	69	31-40	23
22:00	35	11	0	0	0	0	0	0	0	0	0	0	0	0	46	31-40	16
23:00	31	9	3	1	0	0	0	0	0	0	0	0	0	0	44	34-43	12
Total	2716	966	138	14	1	0	0	0	0	0	0	0	0	0	3835		
Percent	70.8%	25.2%	3.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	06:00	11:00	06:00	11:00										07:00		
Vol.	167	72	12	2	1										219		
PM Peak	15:00	12:00	13:00	13:00											15:00		
Vol.	296	89	22	2											377		

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start	1	36	41	46	51	56	61	66	71	76	81	86	91	96		Pace	Number
Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999	Total	Speed	in Pace
12/2/10	16	6	0	1	0	0	0	0	0	0	0	0	0	0	23	1-10	10
01:00	7	4	0	0	0	0	0	0	0	0	0	0	0	0	11	*	7
02:00	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9	*	6
03:00	3	3	2	0	0	0	0	0	0	0	0	0	0	0	8	33-42	8
04:00	11	3	2	0	0	0	0	0	0	0	0	0	0	0	16	1-10	10
05:00	33	17	3	0	0	0	0	0	0	0	0	0	0	0	53	31-40	20
06:00	125	75	**22**	1	0	0	0	0	0	0	0	0	0	0	**223**	36-45	97
07:00	**127**	**78**	15	0	0	0	0	0	0	0	0	0	0	0	220	31-40	93
08:00	102	67	10	**2**	0	0	0	0	0	0	0	0	0	0	181	31-40	79
09:00	52	26	3	0	0	0	0	0	0	0	0	0	0	0	81	31-40	31
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	482	282	57	4	0	0	0	0	0	0	0	0	0	0	825		
Percent	58.4%	34.2%	6.9%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	06:00	08:00											06:00		
Vol.	127	78	22	2											223		
PM Peak																	
Vol.																	

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

WB

Start	1	36	41	46	51	56	61	66	71	76	81	86	91	96		Pace	Number
Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999	Total	Speed	in Pace
12/3/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
13:00	**2**	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	*	2
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2		
Percent	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	13:00 2														13:00 2		
Total	5231	1859	268	18	1	0	0	0	0	0	0	0	0	0	7377		
Percent	70.9%	25.2%	3.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 8 MPH
50th Percentile : 25 MPH
85th Percentile : 38 MPH
95th Percentile : 40 MPH

Stats

10 MPH Pace Speed : 31-40 MPH
Number in Pace : 2604
Percent in Pace : 35.3%
Number of Vehicles > 55 MPH : 0
Percent of Vehicles > 55 MPH : 0.0%
Mean Speed(Average) : 24 MPH

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start	1	36	41	46	51	56	61	66	71	76	81	86	91	96		Pace	Number
Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999	Total	Speed	in Pace
11/30/10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	76	41	22	8	0	0	0	0	0	0	0	0	0	0	147	36-45	63
11:00	**87**	**69**	**43**	**14**	**2**	**1**	0	0	0	0	0	0	0	0	**216**	36-45	112
12 PM	70	95	54	11	2	0	0	0	0	0	0	0	0	0	232	36-45	149
13:00	96	75	49	4	1	0	0	0	0	0	0	0	0	0	225	36-45	124
14:00	98	98	42	7	1	0	0	0	0	0	0	0	0	0	246	36-45	140
15:00	173	**132**	45	9	0	0	0	0	0	0	0	0	0	0	**359**	36-45	177
16:00	129	128	**74**	**20**	**5**	0	0	0	0	0	0	0	0	0	356	36-45	202
17:00	**174**	99	44	3	1	0	0	0	0	0	0	0	0	0	321	36-45	143
18:00	112	115	42	2	0	0	0	0	0	0	0	0	0	0	271	36-45	157
19:00	101	68	24	5	0	0	0	0	0	0	0	0	0	0	198	36-45	92
20:00	58	47	18	1	0	0	0	0	0	0	0	0	0	0	124	36-45	65
21:00	47	26	13	5	0	0	0	0	0	0	0	0	0	0	91	36-45	39
22:00	31	27	12	0	2	0	0	0	0	0	0	0	0	0	72	36-45	39
23:00	19	14	8	1	0	0	0	0	0	0	0	0	0	0	42	36-45	22
Total	1271	1034	490	90	14	1	0	0	0	0	0	0	0	0	2900		
Percent	43.8%	35.7%	16.9%	3.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00	11:00	11:00									11:00		
Vol.	87	69	43	14	2	1									216		
PM Peak	17:00	15:00	16:00	16:00	16:00										15:00		
Vol.	174	132	74	20	5										359		

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
12/1/10	16	4	4	0	0	0	0	0	0	0	0	0	0	0	24	1-10	10
01:00	7	2	2	0	0	0	0	0	0	0	0	0	0	0	11	*	7
02:00	10	4	1	0	0	0	0	0	0	0	0	0	0	0	15	1-10	10
03:00	6	0	1	1	0	0	0	0	0	0	0	0	0	0	8	*	6
04:00	7	9	2	0	0	0	0	0	0	0	0	0	0	0	18	30-39	14
05:00	18	13	11	0	0	0	0	0	0	0	0	0	0	0	42	36-45	24
06:00	57	28	18	7	0	0	0	0	0	0	0	0	0	0	110	36-45	46
07:00	**162**	**126**	44	0	0	0	0	0	0	0	0	0	0	0	**332**	36-45	170
08:00	73	76	34	6	0	0	0	0	0	0	0	0	0	0	189	36-45	110
09:00	53	44	32	8	**2**	0	0	0	0	0	0	0	0	0	139	36-45	76
10:00	56	66	36	8	1	0	0	0	0	0	0	0	0	0	167	36-45	102
11:00	58	69	**58**	**13**	1	0	0	0	0	0	0	0	0	0	199	36-45	127
12 PM	78	48	55	**18**	2	0	0	0	0	0	0	0	0	0	201	36-45	103
13:00	64	114	58	10	2	0	0	0	0	0	0	0	0	0	248	36-45	172
14:00	92	97	**66**	16	**3**	0	0	0	0	0	0	0	0	0	274	36-45	163
15:00	142	131	51	11	0	0	0	0	0	0	0	0	0	0	335	36-45	182
16:00	185	121	41	12	0	0	0	0	0	0	0	0	0	0	359	36-45	162
17:00	**226**	**149**	32	3	0	0	0	0	0	0	0	0	0	0	**410**	33-42	181
18:00	129	88	19	4	0	0	0	0	0	0	0	0	0	0	240	35-44	107
19:00	82	70	37	8	2	0	0	0	0	0	0	0	0	0	199	36-45	107
20:00	70	52	14	0	0	**1**	0	0	0	0	0	0	0	0	137	35-44	66
21:00	50	29	11	5	0	0	0	0	0	0	0	0	0	0	95	36-45	40
22:00	31	13	7	1	0	0	0	0	0	0	0	0	0	0	52	36-45	20
23:00	33	7	5	0	0	0	0	0	0	0	0	0	0	0	45	36-45	12
Total	1705	1360	639	131	13	1	0	0	0	0	0	0	0	0	3849		
Percent	44.3%	35.3%	16.6%	3.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	11:00	11:00	09:00										07:00		
Vol.	162	126	58	13	2										332		
PM Peak	17:00	17:00	14:00	12:00	14:00	20:00									17:00		
Vol.	226	149	66	18	3	1									410		

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
12/2/10	11	4	3	1	0	0	0	0	0	0	0	0	0	0	19	1-10	10
01:00	4	4	0	1	0	0	0	0	0	0	0	0	0	0	9	30-39	8
02:00	4	3	3	1	1	0	0	0	0	0	0	0	0	0	12	34-43	6
03:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5	*	4
04:00	9	7	4	1	1	0	0	0	0	0	0	0	0	0	22	35-44	11
05:00	11	12	9	4	0	0	0	0	0	0	0	0	0	0	36	35-44	21
06:00	40	34	27	7	1	0	0	0	0	0	0	0	0	0	109	36-45	61
07:00	**120**	**119**	**62**	13	1	0	0	0	0	0	0	0	0	0	**315**	36-45	181
08:00	60	74	39	**15**	**3**	0	0	0	0	0	0	0	0	0	191	36-45	113
09:00	37	17	13	3	0	0	0	0	0	0	0	0	0	0	70	36-45	30
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
16:00	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	*	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	301	275	160	46	7	0	0	0	0	0	0	0	0	0	789		
Percent	38.1%	34.9%	20.3%	5.8%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	07:00	07:00	08:00	08:00										07:00		
Vol.	120	119	62	15	3										315		
PM Peak	16:00														16:00		
Vol.	1														1		

Installed BE
Counter Number: 487
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 10147 14
Station ID: A
WB Chestnut Ferry East of Old River Rd
EB Chestnut Ferry East of Old River Rd
Latitude: 0' 0.000 Undefined

EB

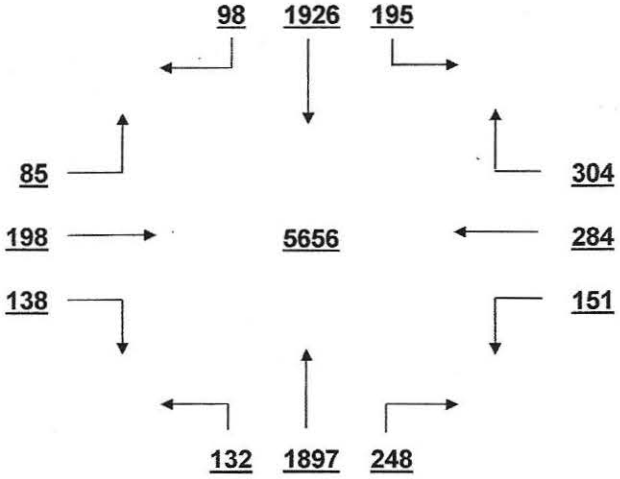
Start	1	36	41	46	51	56	61	66	71	76	81	86	91	96		Pace	Number
Time	35	40	45	50	55	60	65	70	75	80	85	90	95	999	Total	Speed	in Pace
12/3/10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
13:00	**1**	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	*	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1		
Percent	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	13:00 1														13:00 1		
Total	3278	2669	1289	267	34	2	0	0	0	0	0	0	0	0	7539		
Percent	43.5%	35.4%	17.1%	3.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	13 MPH
	50th Percentile :	36 MPH
	85th Percentile :	42 MPH
	95th Percentile :	45 MPH
Stats	10 MPH Pace Speed :	36-45 MPH
	Number in Pace :	3958
	Percent in Pace :	52.5%
	Number of Vehicles > 55 MPH :	2
	Percent of Vehicles > 55 MPH :	0.0%
	Mean Speed(Average) :	31 MPH

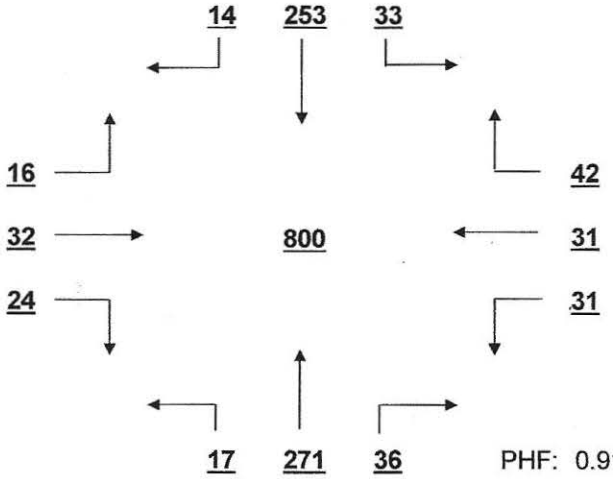
TOTAL AND PEAK HOUR VOLUME DIAGRAMS

BROAD ST. AT RUTLEDGE WEEKDAY Date: 8/24/2010

8.0 HOUR TOTAL VOLUME
FROM 7:00 TO 18:00

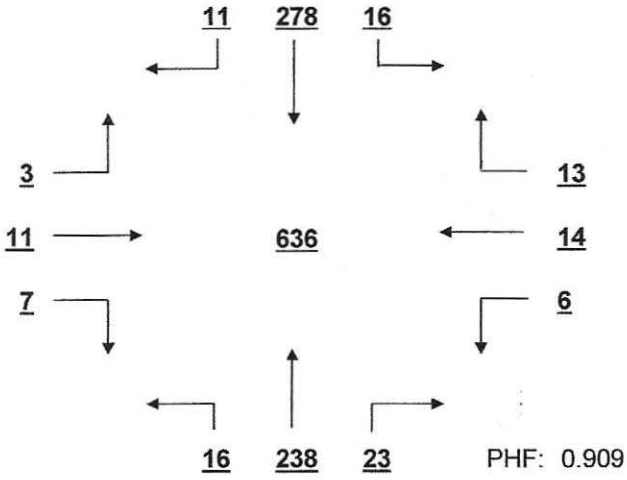


OVERALL PEAK HOUR VOLUME
FROM 15:15 TO 16:15



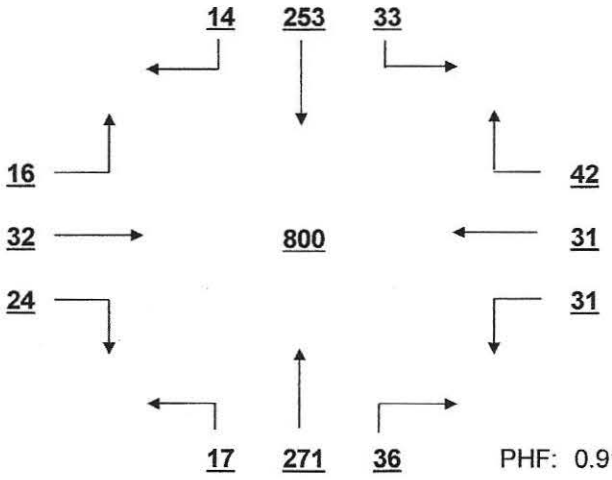
PHF: 0.913

AM PEAK HOUR VOLUME (0:00-10:45)
FROM 7:30 TO 8:30



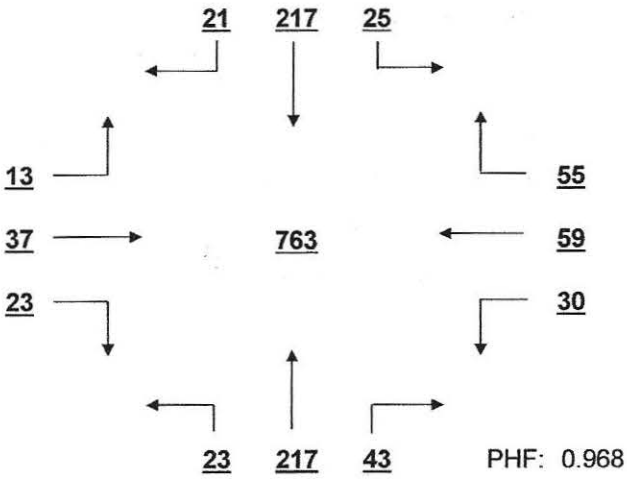
PHF: 0.909

PM PEAK HOUR VOLUME (14:15-23:45)
FROM 15:15 TO 16:15



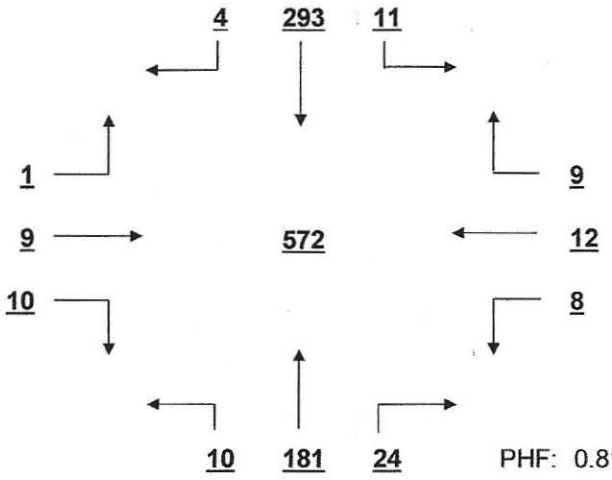
PHF: 0.913

MID-DAY PEAK HOUR VOLUME (11:00-14:00)
FROM 11:45 TO 12:45



PHF: 0.968

OTHER HOUR VOLUME
FROM 7:00 TO 8:00



PHF: 0.817

Installed By: BE
Counter Number: 574
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 04
SB Rippondon St South of DeKalb St
NB Rippondon St South of DeKalb St
Latitude: 0' 0.000 Undefined

Direction 1

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/28/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	10	11	1	2	0	0	0	3	0	0	0	0	0	27
11:00	0	14	6	1	1	0	1	1	0	0	0	0	0	0	24
12 PM	0	29	9	0	6	0	1	1	1	0	0	0	0	0	47
13:00	2	26	11	0	8	0	0	0	0	0	0	0	0	0	47
14:00	0	21	15	1	3	0	0	0	2	0	0	0	0	0	42
15:00	0	29	23	2	4	0	0	0	0	0	0	0	0	0	58
16:00	0	25	27	1	5	0	0	0	4	0	0	0	0	0	62
17:00	0	20	16	1	4	0	0	1	0	0	0	0	0	0	42
18:00	0	16	17	0	1	0	0	0	1	0	0	0	0	0	35
19:00	0	13	6	0	1	0	0	0	1	0	0	0	0	0	21
20:00	0	8	3	0	0	0	0	0	0	0	0	0	0	0	11
21:00	0	7	0	0	0	0	0	0	1	0	0	0	0	0	8
22:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
23:00	0	3	0	0	1	0	0	0	0	0	0	0	0	0	4
Total	2	224	145	7	36	0	2	3	13	0	0	0	0	0	432
Percent	0.5%	51.9%	33.6%	1.6%	8.3%	0.0%	0.5%	0.7%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	10:00	10:00	10:00		11:00	11:00	10:00						
Vol.		14	11	1	2		1	1	3						
PM Peak	13:00	12:00	16:00	15:00	13:00		12:00	12:00	16:00						
Vol.	2	29	27	2	8		1	1	4						

Installed By: BE
Counter Number: 574
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 04
SB Rippondon St South of DeKalb St
NB Rippondon St South of DeKalb St
Latitude: 0' 0.000 Undefined

Direction 1

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/29/12	0	1	0	0	0	0	0	0	1	0	0	0	0	0	2
01:00	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	1	0	0	0	0	2	0	0	0	0	0	3
05:00	0	4	3	0	2	0	0	0	0	0	0	0	0	0	9
06:00	0	12	2	0	0	0	0	0	1	0	0	0	0	0	15
07:00	1	25	12	2	3	0	0	0	1	0	0	0	0	0	44
08:00	0	17	9	1	5	0	0	0	0	0	0	0	0	0	32
09:00	0	14	5	0	3	1	0	0	1	0	0	0	0	0	24
10:00	0	10	11	3	3	0	0	0	0	0	0	0	0	0	27
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	86	43	7	17	1	0	0	6	0	0	0	0	0	161
Percent	0.6%	53.4%	26.7%	4.3%	10.6%	0.6%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	10:00	08:00	09:00			04:00						
Vol.	1	25	12	3	5	1			2						
PM Peak															
Vol.															

Installed By: BE
Counter Number: 574
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 04
SB Rippondon St South of DeKalb St
NB Rippondon St South of DeKalb St
Latitude: 0' 0.000 Undefined

Direction 1

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/30/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.															
Grand Total	3	310	188	14	53	1	2	3	19	0	0	0	0	0	593
Percent	0.5%	52.3%	31.7%	2.4%	8.9%	0.2%	0.3%	0.5%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	

Installed By: BE
Counter Number: 574
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 04
SB Rippondon St South of DeKalb St
NB Rippondon St South of DeKalb St
Latitude: 0' 0.000 Undefined

Direction 2

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/28/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	18	6	0	0	0	0	1	2	0	0	0	0	0	27
11:00	0	24	2	0	1	0	0	0	2	0	0	0	0	0	29
12 PM	0	28	6	0	1	0	0	0	3	0	0	0	0	0	38
13:00	1	36	9	0	0	2	0	0	2	0	0	0	0	0	50
14:00	0	29	8	1	0	0	0	0	2	0	0	0	0	0	40
15:00	1	45	9	0	0	0	0	0	0	0	0	0	0	0	55
16:00	1	51	9	0	1	0	0	0	1	0	0	0	0	0	63
17:00	0	50	10	0	0	0	0	1	0	0	0	0	0	0	61
18:00	0	31	5	0	0	0	0	0	1	0	0	0	0	0	37
19:00	0	23	4	1	0	0	0	0	1	0	0	0	0	0	29
20:00	0	16	5	0	0	0	0	0	0	0	0	0	0	0	21
21:00	0	8	2	0	0	0	0	0	0	0	0	0	0	0	10
22:00	0	9	1	0	1	0	0	0	0	0	0	0	0	0	11
23:00	1	3	0	0	0	0	0	0	1	0	0	0	0	0	5
Total	4	371	76	2	4	2	0	2	15	0	0	0	0	0	476
Percent	0.8%	77.9%	16.0%	0.4%	0.8%	0.4%	0.0%	0.4%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	10:00		11:00			10:00	10:00						
Vol.		24	6		1			1	2						
PM Peak	13:00	16:00	17:00	14:00	12:00	13:00		17:00	12:00						
Vol.	1	51	10	1	1	2		1	3						

Installed By: BE
Counter Number: 574
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 04
SB Rippondon St South of DeKalb St
NB Rippondon St South of DeKalb St
Latitude: 0' 0.000 Undefined

Direction 2

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/29/12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	2	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	1	0	0	1	0	0	0	3	0	0	0	0	0	5
06:00	0	13	2	1	2	0	0	0	1	0	0	0	0	0	19
07:00	0	25	10	0	2	0	0	0	0	0	0	0	0	0	37
08:00	0	28	10	0	5	0	0	1	2	0	0	0	0	0	46
09:00	0	23	7	0	0	0	0	0	1	0	0	0	0	0	31
10:00	0	21	5	0	0	1	0	0	2	0	0	0	0	0	29
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	114	36	1	10	1	0	1	9	0	0	0	0	0	173
Percent	0.6%	65.9%	20.8%	0.6%	5.8%	0.6%	0.0%	0.6%	5.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	01:00	08:00	07:00	06:00	08:00	10:00		08:00	05:00						
Vol.	1	28	10	1	5	1		1	3						
PM Peak															
Vol.															

Installed By: BE
Counter Number: 574
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 04
SB Rippondon St South of DeKalb St
NB Rippondon St South of DeKalb St
Latitude: 0' 0.000 Undefined

Direction 2

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/30/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.															
Grand Total	5	485	112	3	14	3	0	3	24	0	0	0	0	0	649
Percent	0.8%	74.7%	17.3%	0.5%	2.2%	0.5%	0.0%	0.5%	3.7%	0.0%	0.0%	0.0%	0.0%	0.0%	

Installed By: BE
Counter Number: 576
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 03
EB York St West of Rippondon St
WB York St West of Rippondon St
Latitude: 0' 0.000 Undefined

Direction 1

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/28/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	0	47	24	3	4	0	0	4	3	0	0	0	0	0	85
11:00	3	87	25	1	5	1	0	0	2	0	0	0	0	0	124
12 PM	0	103	28	1	12	1	0	1	5	0	0	0	0	0	151
13:00	2	117	44	3	8	0	0	0	4	0	0	0	0	0	178
14:00	1	122	41	10	17	0	0	0	3	0	0	0	0	0	194
15:00	2	155	62	9	12	0	0	5	1	0	0	0	0	0	246
16:00	4	175	49	0	10	2	0	4	3	0	0	0	0	0	247
17:00	3	194	89	2	17	0	0	3	1	0	0	0	0	0	309
18:00	1	147	44	1	9	0	0	1	0	0	0	0	0	0	203
19:00	1	121	36	1	1	0	0	2	1	0	0	0	0	0	163
20:00	0	76	29	1	2	0	0	3	0	0	0	0	0	0	111
21:00	1	50	14	0	1	0	0	0	0	0	0	0	0	0	66
22:00	1	26	4	0	0	0	0	0	0	0	0	0	0	0	31
23:00	0	21	3	0	0	0	0	0	1	0	0	0	0	0	25
Total	19	1441	492	32	98	4	0	23	24	0	0	0	0	0	2133
Percent	0.9%	67.6%	23.1%	1.5%	4.6%	0.2%	0.0%	1.1%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	10:00	11:00	11:00		10:00	10:00						
Vol.	3	87	25	3	5	1		4	3						
PM Peak	16:00	17:00	17:00	14:00	14:00	16:00		15:00	12:00						
Vol.	4	194	89	10	17	2		5	5						

Installed By: BE
Counter Number: 576
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 03
EB York St West of Rippondon St
WB York St West of Rippondon St
Latitude: 0' 0.000 Undefined

Direction 1

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/29/12	0	11	1	0	0	0	0	1	0	0	0	0	0	0	13
01:00	0	6	2	0	0	0	0	0	0	0	0	0	0	0	8
02:00	0	3	1	0	0	0	0	0	0	0	0	0	0	0	4
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	2	4	0	0	0	0	0	1	0	0	0	0	0	7
05:00	0	5	1	4	2	0	0	0	3	0	0	0	0	0	15
06:00	0	40	14	2	4	0	0	0	1	0	0	0	0	0	61
07:00	0	119	39	1	7	3	0	1	1	0	0	0	0	0	171
08:00	1	59	42	4	17	0	0	4	4	0	0	0	0	0	131
09:00	0	68	33	2	8	0	0	3	3	0	0	0	0	0	117
10:00	0	41	22	0	8	1	0	0	2	0	0	0	0	0	74
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	355	159	13	46	4	0	9	15	0	0	0	0	0	602
Percent	0.2%	59.0%	26.4%	2.2%	7.6%	0.7%	0.0%	1.5%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	07:00	08:00	05:00	08:00	07:00		08:00	08:00						
Vol.	1	119	42	4	17	3		4	4						
PM Peak		13:00													
Vol.		1													

Installed By: BE
Counter Number: 576
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 03
EB York St West of Rippondon St
WB York St West of Rippondon St
Latitude: 0' 0.000 Undefined

Direction 1

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/30/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.															
Grand Total	20	1796	651	45	144	8	0	32	39	0	0	0	0	0	2735
Percent	0.7%	65.7%	23.8%	1.6%	5.3%	0.3%	0.0%	1.2%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

Installed By: BE
Counter Number: 576
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 03
EB York St West of Rippondon St
WB York St West of Rippondon St
Latitude: 0' 0.000 Undefined

Direction 2

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/28/12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	1	89	21	2	6	1	0	1	3	0	0	0	0	0	124
11:00	1	111	28	0	5	2	0	3	2	0	0	0	0	0	152
12 PM	1	88	23	0	3	0	1	1	1	1	0	0	0	0	119
13:00	1	97	27	2	4	0	0	2	2	0	0	0	0	0	135
14:00	0	154	37	2	10	2	0	0	3	0	0	0	0	0	208
15:00	0	152	39	5	10	0	0	1	1	0	0	0	0	0	208
16:00	0	121	23	2	9	4	0	4	3	0	0	0	0	0	166
17:00	0	126	22	0	6	0	0	2	1	0	0	0	0	0	157
18:00	0	90	18	0	1	0	0	1	0	0	0	0	0	0	110
19:00	0	54	15	0	0	0	0	0	1	0	0	0	0	0	70
20:00	0	26	10	0	0	0	0	1	0	0	0	0	0	0	37
21:00	0	20	5	0	0	0	0	0	1	0	0	0	0	0	26
22:00	0	12	5	0	0	0	0	0	0	0	0	0	0	0	17
23:00	0	4	1	0	0	0	0	0	1	0	0	0	0	0	6
Total	4	1144	274	13	54	9	1	16	19	1	0	0	0	0	1535
Percent	0.3%	74.5%	17.9%	0.8%	3.5%	0.6%	0.1%	1.0%	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	11:00	11:00	10:00	10:00	11:00		11:00	10:00						
Vol.	1	111	28	2	6	2		3	3						
PM Peak	12:00	14:00	15:00	15:00	14:00	16:00	12:00	16:00	14:00	12:00					
Vol.	1	154	39	5	10	4	1	4	3	1					

Installed By: BE
Counter Number: 576
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 03
EB York St West of Rippondon St
WB York St West of Rippondon St
Latitude: 0' 0.000 Undefined

Direction 2

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/29/12	0	2	0	0	0	0	0	0	1	0	0	0	0	0	3
01:00	0	4	0	0	0	0	0	0	1	0	0	0	0	0	5
02:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	6	0	0	0	0	0	0	0	0	0	0	0	0	6
04:00	0	17	2	0	0	0	0	0	2	0	0	0	0	0	21
05:00	0	32	13	0	0	0	0	0	1	0	0	0	0	0	46
06:00	1	103	31	0	3	0	0	0	1	0	0	0	0	0	139
07:00	3	264	49	6	11	2	0	1	3	0	0	0	0	0	339
08:00	1	140	36	0	6	1	0	3	2	0	1	0	0	0	190
09:00	0	107	22	1	7	2	0	1	1	0	0	0	0	0	141
10:00	1	59	15	1	2	2	0	0	1	0	0	0	0	0	81
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	6	735	169	8	29	7	0	5	13	0	1	0	0	0	973
Percent	0.6%	75.5%	17.4%	0.8%	3.0%	0.7%	0.0%	0.5%	1.3%	0.0%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	07:00		08:00	07:00		08:00				
Vol.	3	264	49	6	11	2		3	3		1				
PM Peak															
Vol.															

Installed By: BE
Counter Number: 576
Weather: Mild
Other: S&S

Traffic Data Connection
PO Box 445
Abbeville GA 31001
843.216.3304

Site Code: 12308
Station ID: 03
EB York St West of Rippondon St
WB York St West of Rippondon St
Latitude: 0' 0.000 Undefined

Direction 2

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Not Classed	Total
3/30/12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Percent	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak Vol.															
PM Peak Vol.															
Grand Total	10	1879	443	21	83	16	1	21	32	1	1	0	0	0	2508
Percent	0.4%	74.9%	17.7%	0.8%	3.3%	0.6%	0.0%	0.8%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: T-0520
Counted By: BE
Weather: Mild
Other: S&S

File Name : 12308-01
Site Code : 01230801
Start Date : 3/28/2012
Page No : 1

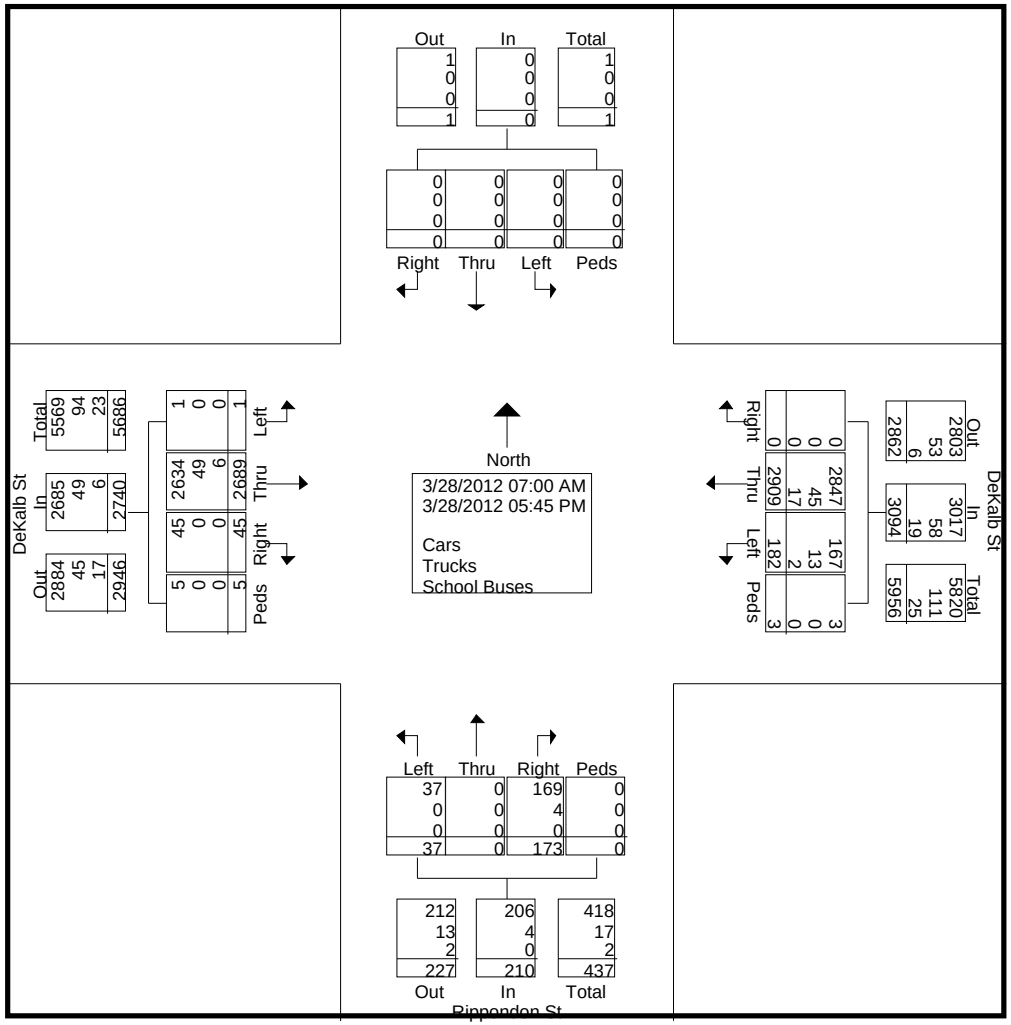
Groups Printed- Cars - Trucks - School Buses

	Rippondon St Northbound					Southbound					DeKalb St Eastbound					DeKalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	7	0	7	0	0	0	0	0	0	106	1	0	107	10	171	0	0	181	295
07:15 AM	0	0	6	0	6	0	0	0	0	0	0	123	1	0	124	8	238	0	0	246	376
07:30 AM	0	0	14	0	14	0	0	0	0	0	0	116	0	0	116	14	267	0	0	281	411
07:45 AM	1	0	11	0	12	0	0	0	0	0	0	128	1	0	129	11	268	0	1	280	421
Total	1	0	38	0	39	0	0	0	0	0	0	473	3	0	476	43	944	0	1	988	1503
08:00 AM	0	0	7	0	7	0	0	0	0	0	0	132	2	1	135	14	158	0	0	172	314
08:15 AM	0	0	9	0	9	0	0	0	0	0	0	102	6	2	110	54	109	0	0	163	282
08:30 AM	3	0	7	0	10	0	0	0	0	0	0	121	2	0	123	8	163	0	0	171	304
08:45 AM	1	0	8	0	9	0	0	0	0	0	0	108	1	0	109	4	184	0	1	189	307
Total	4	0	31	0	35	0	0	0	0	0	0	463	11	3	477	80	614	0	1	695	1207
*** BREAK ***																					
04:00 PM	2	0	12	0	14	0	0	0	0	0	0	209	3	0	212	8	169	0	0	177	403
04:15 PM	1	0	14	0	15	0	0	0	0	0	0	208	3	0	211	8	165	0	0	173	399
04:30 PM	5	0	19	0	24	0	0	0	0	0	0	203	3	1	207	11	190	0	0	201	432
04:45 PM	8	0	12	0	20	0	0	0	0	0	0	229	4	1	234	10	146	0	1	157	411
Total	16	0	57	0	73	0	0	0	0	0	0	849	13	2	864	37	670	0	1	708	1645
05:00 PM	3	0	15	0	18	0	0	0	0	0	1	242	0	0	243	7	186	0	0	193	454
05:15 PM	7	0	13	0	20	0	0	0	0	0	0	243	9	0	252	7	163	0	0	170	442
05:30 PM	2	0	11	0	13	0	0	0	0	0	0	217	6	0	223	5	166	0	0	171	407
05:45 PM	4	0	8	0	12	0	0	0	0	0	0	202	3	0	205	3	166	0	0	169	386
Total	16	0	47	0	63	0	0	0	0	0	1	904	18	0	923	22	681	0	0	703	1689
Grand Total	37	0	173	0	210	0	0	0	0	0	1	2689	45	5	2740	182	2909	0	3	3094	6044
Apprch %	17.6	0	82.4	0		0	0	0	0		0	98.1	1.6	0.2		5.9	94	0	0.1		
Total %	0.6	0	2.9	0	3.5	0	0	0	0	0	0	44.5	0.7	0.1	45.3	3	48.1	0	0	51.2	
Cars	37	0	169	0	206	0	0	0	0	0	1	2634	45	5	2685	167	2847	0	3	3017	5908
% Cars	100	0	97.7	0	98.1	0	0	0	0	0	100	98	100	100	98	91.8	97.9	0	100	97.5	97.7
Trucks	0	0	4	0	4	0	0	0	0	0	0	49	0	0	49	13	45	0	0	58	111
% Trucks	0	0	2.3	0	1.9	0	0	0	0	0	0	1.8	0	0	1.8	7.1	1.5	0	0	1.9	1.8
School Buses	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	2	17	0	0	19	25
% School Buses	0	0	0	0	0	0	0	0	0	0	0	0.2	0	0	0.2	1.1	0.6	0	0	0.6	0.4

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: T-0520
Counted By: BE
Weather: Mild
Other: S&S

File Name : 12308-01
Site Code : 01230801
Start Date : 3/28/2012
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: T-0520
Counted By: BE
Weather: Mild
Other: S&S

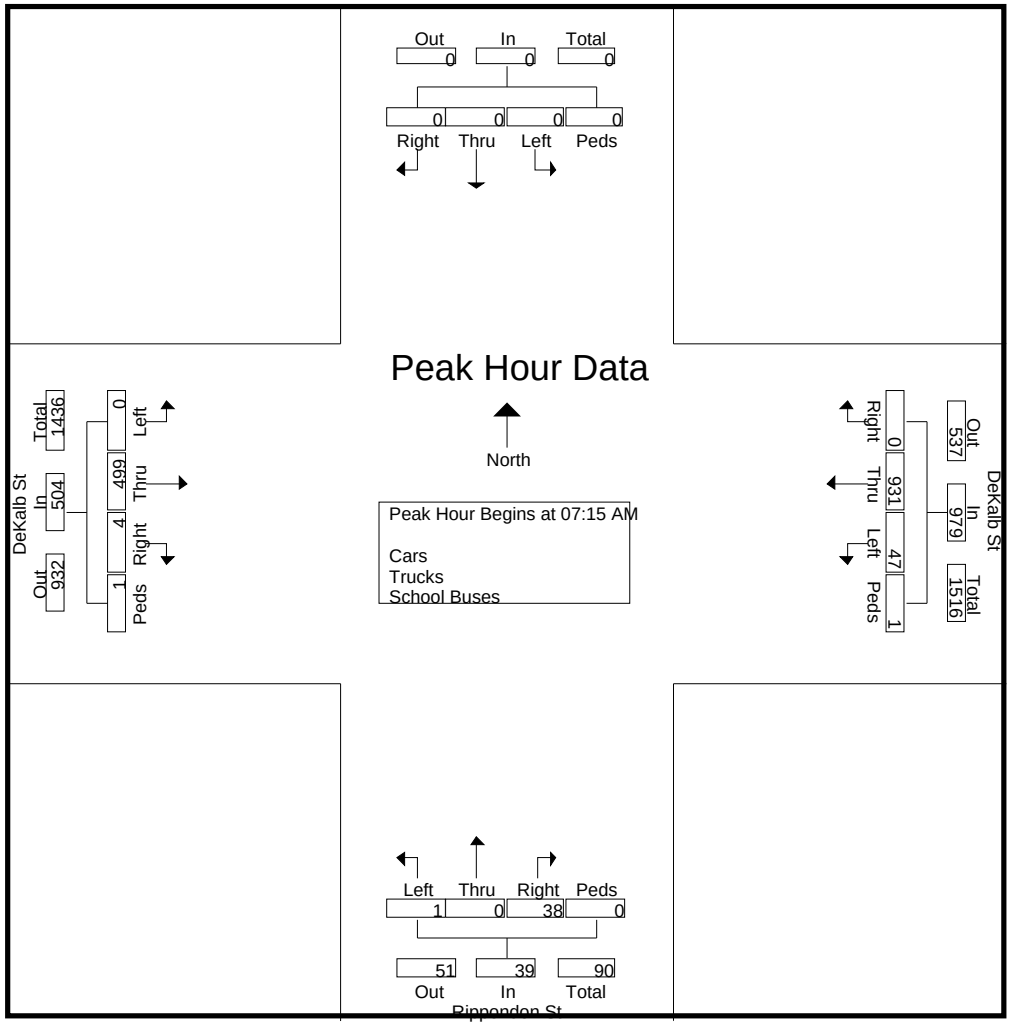
File Name : 12308-01
Site Code : 01230801
Start Date : 3/28/2012
Page No : 3

	Rippondon St Northbound					Southbound					DeKalb St Eastbound					DeKalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	6	0	6	0	0	0	0	0	0	123	1	0	124	8	238	0	0	246	376
07:30 AM	0	0	**14**	0	**14**	0	0	0	0	0	0	116	0	0	116	**14**	267	0	0	**281**	411
07:45 AM	**1**	0	11	0	12	0	0	0	0	0	0	128	1	0	129	11	**268**	0	**1**	280	**421**
08:00 AM	0	0	7	0	7	0	0	0	0	0	0	**132**	**2**	**1**	**135**	14	158	0	0	172	314
Total Volume	1	0	38	0	39	0	0	0	0	0	0	499	4	1	504	47	931	0	1	979	1522
% App. Total	2.6	0	97.4	0		0	0	0	0		0	99	0.8	0.2		4.8	95.1	0	0.1		
PHF	.250	.000	.679	.000	.696	.000	.000	.000	.000	.000	.000	.945	.500	.250	.933	.839	.868	.000	.250	.871	.904

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: T-0520
Counted By: BE
Weather: Mild
Other: S&S

File Name : 12308-01
Site Code : 01230801
Start Date : 3/28/2012
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: T-0520
Counted By: BE
Weather: Mild
Other: S&S

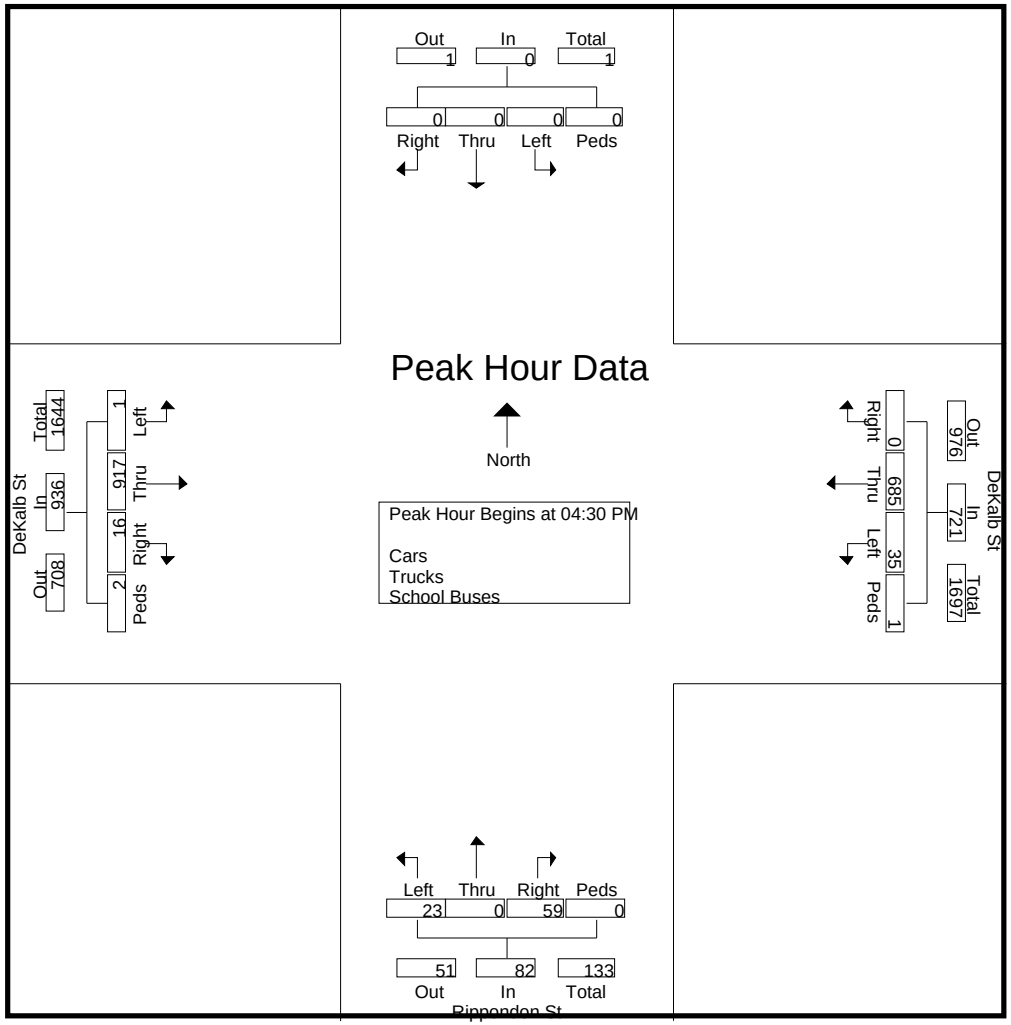
File Name : 12308-01
Site Code : 01230801
Start Date : 3/28/2012
Page No : 5

	Rippondon St Northbound					Southbound					DeKalb St Eastbound					DeKalb St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	5	0	**19**	0	**24**	0	0	0	0	0	0	203	3	**1**	207	**11**	**190**	0	0	**201**	432
04:45 PM	**8**	0	12	0	20	0	0	0	0	0	0	229	4	1	234	10	146	0	**1**	157	411
05:00 PM	3	0	15	0	18	0	0	0	0	0	**1**	242	0	0	243	7	186	0	0	193	**454**
05:15 PM	7	0	13	0	20	0	0	0	0	0	0	**243**	**9**	0	**252**	7	163	0	0	170	442
Total Volume	23	0	59	0	82	0	0	0	0	0	1	917	16	2	936	35	685	0	1	721	1739
% App. Total	28	0	72	0		0	0	0	0		0.1	98	1.7	0.2		4.9	95	0	0.1		
PHF	.719	.000	.776	.000	.854	.000	.000	.000	.000	.000	.250	.943	.444	.500	.929	.795	.901	.000	.250	.897	.958

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: T-0520
Counted By: BE
Weather: Mild
Other: S&S

File Name : 12308-01
Site Code : 01230801
Start Date : 3/28/2012
Page No : 6



Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: D4-2291
Counted By: LE
Weather: Mild
Other: S&S

File Name : 12308-02
Site Code : 01230802
Start Date : 3/28/2012
Page No : 1

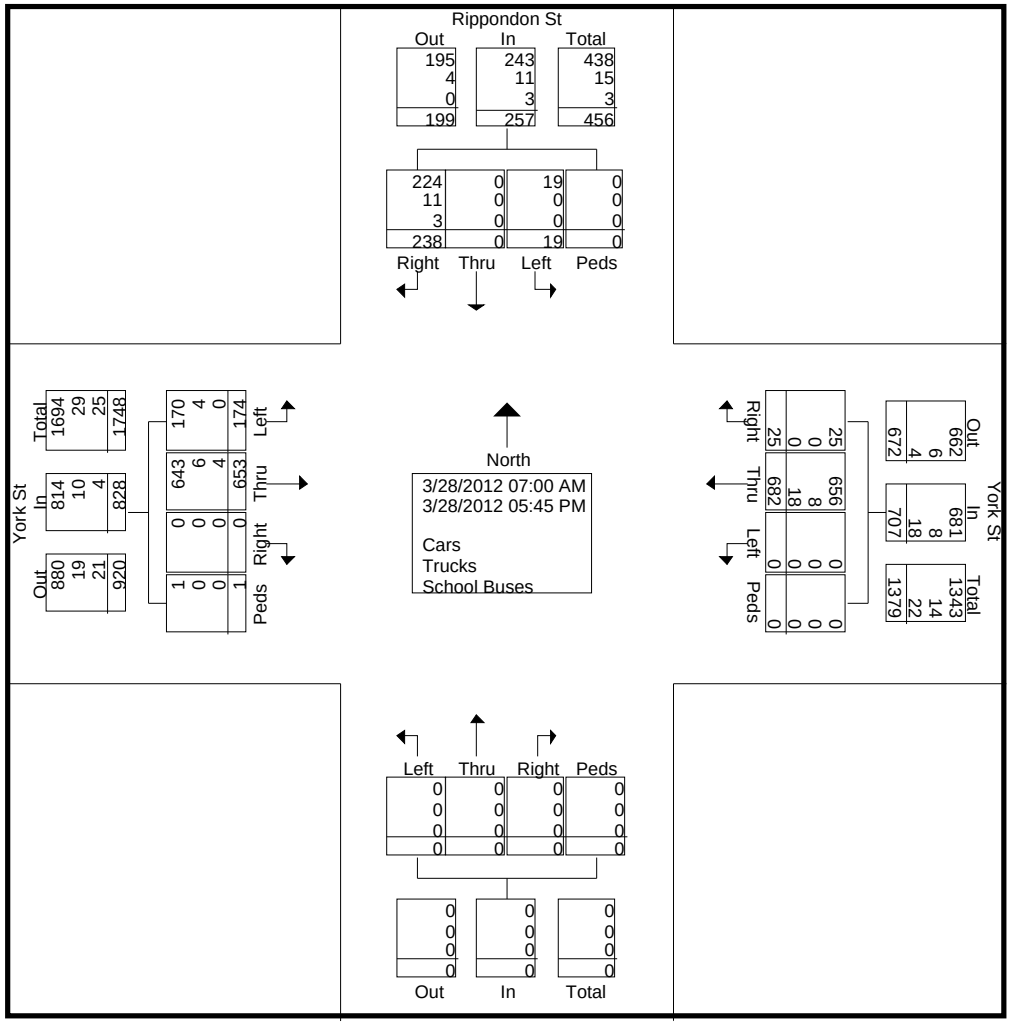
Groups Printed- Cars - Trucks - School Buses

	Northbound					Rippondon St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	10	0	10	5	23	0	0	28	0	42	0	0	42	80
07:15 AM	0	0	0	0	0	0	0	5	0	5	6	42	0	0	48	0	80	0	0	80	133
07:30 AM	0	0	0	0	0	1	0	14	0	15	13	41	0	0	54	0	116	0	0	116	185
07:45 AM	0	0	0	0	0	1	0	17	0	18	14	50	0	0	64	0	77	0	0	77	159
Total	0	0	0	0	0	2	0	46	0	48	38	156	0	0	194	0	315	0	0	315	557
08:00 AM	0	0	0	0	0	0	0	16	0	16	7	18	0	0	25	0	39	4	0	43	84
08:15 AM	0	0	0	0	0	1	0	70	0	71	9	25	0	0	34	0	38	0	0	38	143
08:30 AM	0	0	0	0	0	0	0	12	0	12	7	17	0	0	24	0	36	3	0	39	75
08:45 AM	0	0	0	0	0	0	0	5	0	5	11	13	0	0	24	0	30	2	0	32	61
Total	0	0	0	0	0	1	0	103	0	104	34	73	0	0	107	0	143	9	0	152	363
*** BREAK ***																					
04:00 PM	0	0	0	0	0	2	0	11	0	13	12	47	0	0	59	0	28	5	0	33	105
04:15 PM	0	0	0	0	0	2	0	7	0	9	8	29	0	0	37	0	23	3	0	26	72
04:30 PM	0	0	0	0	0	1	0	18	0	19	17	58	0	0	75	0	24	1	0	25	119
04:45 PM	0	0	0	0	0	4	0	17	0	21	15	50	0	0	65	0	29	3	0	32	118
Total	0	0	0	0	0	9	0	53	0	62	52	184	0	0	236	0	104	12	0	116	414
05:00 PM	0	0	0	0	0	0	0	8	0	8	15	56	0	0	71	0	28	2	0	30	109
05:15 PM	0	0	0	0	0	3	0	11	0	14	11	55	0	0	66	0	36	0	0	36	116
05:30 PM	0	0	0	0	0	3	0	9	0	12	13	68	0	0	81	0	25	2	0	27	120
05:45 PM	0	0	0	0	0	1	0	8	0	9	11	61	0	1	73	0	31	0	0	31	113
Total	0	0	0	0	0	7	0	36	0	43	50	240	0	1	291	0	120	4	0	124	458
Grand Total	0	0	0	0	0	19	0	238	0	257	174	653	0	1	828	0	682	25	0	707	1792
Apprch %	0	0	0	0		7.4	0	92.6	0		21	78.9	0	0.1		0	96.5	3.5	0		
Total %	0	0	0	0	0	1.1	0	13.3	0	14.3	9.7	36.4	0	0.1	46.2	0	38.1	1.4	0	39.5	
Cars	0	0	0	0	0	19	0	224	0	243	170	643	0	1	814	0	656	25	0	681	1738
% Cars	0	0	0	0	0	100	0	94.1	0	94.6	97.7	98.5	0	100	98.3	0	96.2	100	0	96.3	97
Trucks	0	0	0	0	0	0	0	11	0	11	4	6	0	0	10	0	8	0	0	8	29
% Trucks	0	0	0	0	0	0	0	4.6	0	4.3	2.3	0.9	0	0	1.2	0	1.2	0	0	1.1	1.6
School Buses	0	0	0	0	0	0	0	3	0	3	0	4	0	0	4	0	18	0	0	18	25
% School Buses	0	0	0	0	0	0	0	1.3	0	1.2	0	0.6	0	0	0.5	0	2.6	0	0	2.5	1.4

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: D4-2291
Counted By: LE
Weather: Mild
Other: S&S

File Name : 12308-02
Site Code : 01230802
Start Date : 3/28/2012
Page No : 2



Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: D4-2291
Counted By: LE
Weather: Mild
Other: S&S

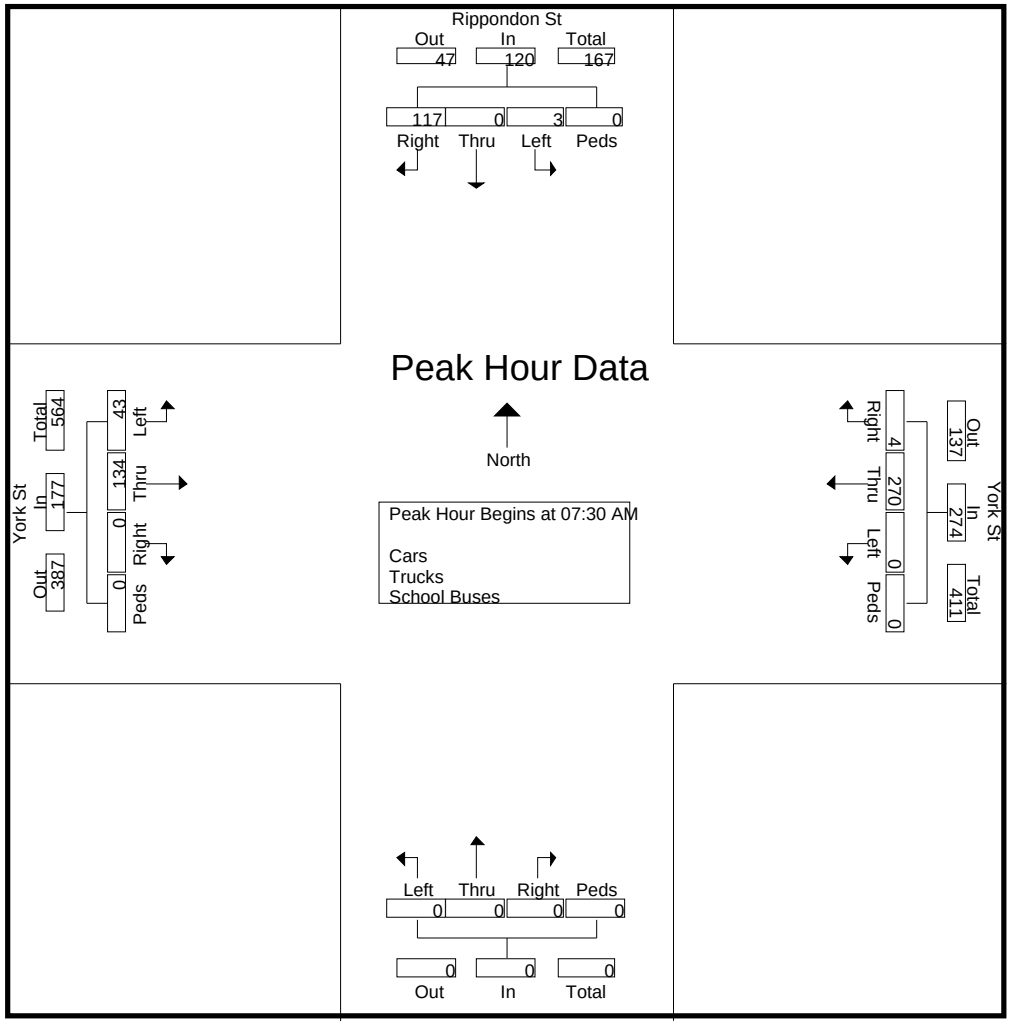
File Name : 12308-02
Site Code : 01230802
Start Date : 3/28/2012
Page No : 3

	Northbound					Rippondon St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	**1**	0	14	0	15	13	41	0	0	54	0	**116**	0	0	**116**	**185**
07:45 AM	0	0	0	0	0	1	0	17	0	18	**14**	**50**	0	0	**64**	0	77	0	0	77	159
08:00 AM	0	0	0	0	0	0	0	16	0	16	7	18	0	0	25	0	39	**4**	0	43	84
08:15 AM	0	0	0	0	0	1	0	**70**	0	**71**	9	25	0	0	34	0	38	0	0	38	143
Total Volume	0	0	0	0	0	3	0	117	0	120	43	134	0	0	177	0	270	4	0	274	571
% App. Total	0	0	0	0		2.5	0	97.5	0		24.3	75.7	0	0		0	98.5	1.5	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.418	.000	.423	.768	.670	.000	.000	.691	.000	.582	.250	.000	.591	.772

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: D4-2291
Counted By: LE
Weather: Mild
Other: S&S

File Name : 12308-02
Site Code : 01230802
Start Date : 3/28/2012
Page No : 4



Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: D4-2291
Counted By: LE
Weather: Mild
Other: S&S

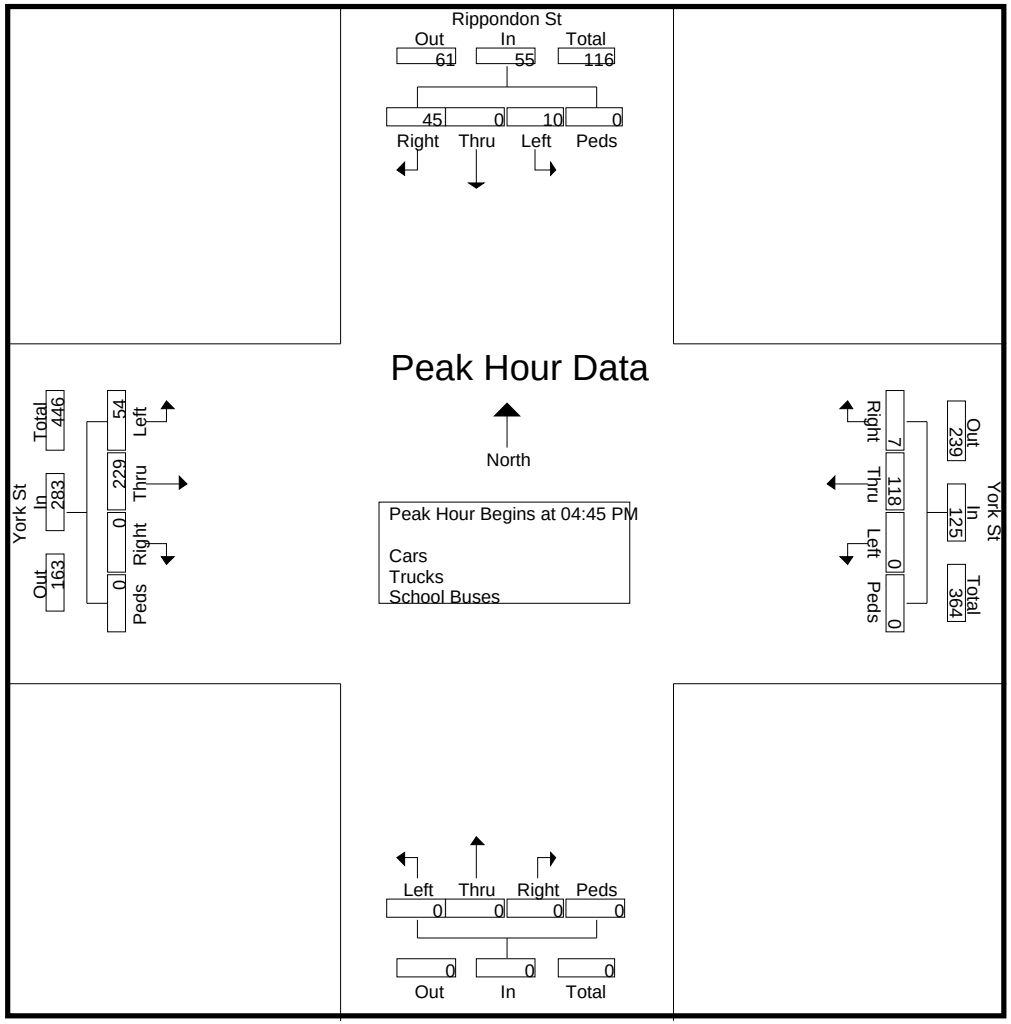
File Name : 12308-02
Site Code : 01230802
Start Date : 3/28/2012
Page No : 5

	Northbound					Rippondon St Southbound					York St Eastbound					York St Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	**4**	0	**17**	0	**21**	**15**	50	0	0	65	0	29	**3**	0	32	118
05:00 PM	0	0	0	0	0	0	0	8	0	8	15	56	0	0	71	0	28	2	0	30	109
05:15 PM	0	0	0	0	0	3	0	11	0	14	11	55	0	0	66	0	**36**	0	0	**36**	116
05:30 PM	0	0	0	0	0	3	0	9	0	12	13	**68**	0	0	**81**	0	25	2	0	27	**120**
Total Volume	0	0	0	0	0	10	0	45	0	55	54	229	0	0	283	0	118	7	0	125	463
% App. Total	0	0	0	0		18.2	0	81.8	0		19.1	80.9	0	0		0	94.4	5.6	0		
PHF	.000	.000	.000	.000	.000	.625	.000	.662	.000	.655	.900	.842	.000	.000	.873	.000	.819	.583	.000	.868	.965

Traffic Data Connection
PO Box 445
Abbeville, Georgia 31001
843.216.3304

Counter: D4-2291
Counted By: LE
Weather: Mild
Other: S&S

File Name : 12308-02
Site Code : 01230802
Start Date : 3/28/2012
Page No : 6



Appendix B

DAILY TRAFFIC AND TRUCK PERCENTAGES

Roadway Segment		2010 Existing				2015 First Operation Year				2035 Design Year				Posted Speed
		ADT	24 Hr Hvy Tr	Truck %		ADT	24 Hr Hvy Tr	Truck %		ADT	24 Hr Hvy Tr	Truck %		
				Medium	Heavy			Medium	Heavy			Medium	Heavy	
Broad (York to Dekalb)		7,100	170	8	3	7,500	0	8	0	10,100	0	8	0	25
Ehrenclou (Broad to Chestnut)		4,200	120	9	3	4,800	450	8	9	6,500	610	8	9	35 to 45
Chestnut (Ehrenclou to Dekalb)		6,700	120	6	2	7,500	400	6	5	10,200	540	6	5	35
Boykin (Knights Hill to Liberty Hill)		6,400	250	12	4	7,000	400	12	6	9,500	540	12	6	40
Boykin (Liberty Hill to US 521)		4,600	340	23	8	5,100	500	23	10	6,900	670	23	10	40
York (Broad to Mill)		6,200	290	9	5	6,900	510	9	7	9,300	690	9	7	30
York (Mill to Rippondon)		5100*	150	6	3	5,600	480	6	8	7,500	650	6	9	30
Rippondon (York to DeKalb)**		1200*	50	7	4	1,700	390	5	23	2,300	520	5	23	30
Mill (York to DeKalb		2,800	170	18	6	2,900	40	19	1	3,900	50	19	1	

* 2012 24-hour volume

** Future volumes do not account for rerouted passenger vehicles which may be attracted to new road with a signal at US 1.

Appendix C

HISTORICAL TRAFFIC VOLUMES
(Source: South Carolina Department of Transportation)

STATION	ROUTE NO.	ROUTE LOCATION	EST. AADT	AADT YEAR	COUNTY
117	US 1	S-45 TO S-747	17900	1987	Kershaw
117	US 1	S-45 TO S-747	16500	1988	Kershaw
117	US 1	S-45 TO S-747	18200	1989	Kershaw
117	US 1	S-45 TO S-747	18200	1990	Kershaw
117	US 1	S-45 TO S-747	18100	1991	Kershaw
117	US 1	S-45 TO S-747	17800	1992	Kershaw
117	US 1	S-45 TO S-747	16000	1993	Kershaw
117	US 1	S-45 TO S-747	16600	1994	Kershaw
117	US 1	S-45 TO S-747	18600	1995	Kershaw
117	US 1	S-45 TO S-747	18600	1996	Kershaw
117	US 1	S-45 TO S-747	17000	1997	Kershaw
117	US 1	S-45 TO S-747	21000	1998	Kershaw
117	US 1	S-45 TO S-747	18700	1999	Kershaw
117	US 1	S-45 TO S-747	17700	2000	Kershaw
117	US 1	S-45 TO S-747	18700	2001	Kershaw
117	US 1	S-45 TO S-747	17500	2002	Kershaw
117	US 1	S-45 TO S-747	17900	2003	Kershaw
117	US 1	S-45 TO S-747	17700	2004	Kershaw
117	US 1	S-45 TO S-747	17000	2005	Kershaw
117	US 1	S-45 TO S-747	16300	2006	Kershaw
117	US 1	S-45 TO S-747	18100	2007	Kershaw
117	US 1	S-45 TO S-747	19300	2008	Kershaw
117	US 1	S-45 TO S-747	21000	2009	Kershaw
121	US 1	U.S. 521/601 TO S-79	17900	1987	Kershaw
121	US 1	U.S. 521/601 TO S-79	17000	1988	Kershaw
121	US 1	U.S. 521/601 TO S-79	18100	1989	Kershaw
121	US 1	U.S. 521/601 TO S-79	19000	1990	Kershaw
121	US 1	U.S. 521/601 TO S-79	18200	1991	Kershaw
121	US 1	U.S. 521/601 TO S-79	17500	1992	Kershaw
121	US 1	U.S. 521/601 TO S-79	15400	1993	Kershaw
121	US 1	U.S. 521/601 TO S-79	17500	1994	Kershaw
121	US 1	U.S. 521/601 TO S-79	17400	1995	Kershaw
121	US 1	U.S. 521/601 TO S-79	17700	1996	Kershaw
121	US 1	U.S. 521/601 TO S-79	17700	1997	Kershaw
121	US 1	U.S. 521/601 TO S-79	19600	1998	Kershaw
121	US 1	U.S. 521/601 TO S-79	20000	1999	Kershaw
121	US 1	U.S. 521/601 TO S-79	18100	2000	Kershaw
121	US 1	U.S. 521/601 TO S-79	18800	2001	Kershaw
121	US 1	U.S. 521/601 TO S-79	18400	2002	Kershaw
121	US 1	U.S. 521/601 TO S-79	18600	2003	Kershaw

STAT	ROUTE NO.	ROUTE LOCATION	EST. AADT	AADT YEAR	COUNTY
121	US 1	U.S. 521/601 TO S-79	18800	2004	Kershaw
121	US 1	U.S. 521/601 TO S-79	17700	2005	Kershaw
121	US 1	U.S. 521/601 TO S-79	17700	2006	Kershaw

121	US	1	U.S. 521/601 TO S-79	18500	2007 Kershaw
121	US	1	U.S. 521/601 TO S-79	20100	2008 Kershaw
121	US	1	U.S. 521/601 TO S-79	18100	2009 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	15100	1987 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	16699	1988 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	16400	1989 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	17100	1990 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	16100	1991 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	16300	1992 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	15100	1993 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	18000	1994 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	19200	1995 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	21600	1996 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	20000	1997 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	20400	1998 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	20800	1999 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	20100	2000 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	19800	2001 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	19300	2002 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	21100	2003 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	21100	2004 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	19900	2005 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	17500	2006 Kershaw
123	US	1	S-79 TO S.C. 34/34 CONN.	18700	2007 Kershaw
123	US	1	S-79 TO S.C. 34	18200	2008 Kershaw
123	US	1	S-79 TO S.C. 34	17500	2009 Kershaw
141	US	521	S-12 TO S-217	9500	1987 Kershaw
141	US	521	S-12 TO S-217	9000	1988 Kershaw
141	US	521	S-12 TO S-217	10100	1989 Kershaw
141	US	521	S-12 TO S-217	10800	1990 Kershaw
141	US	521	S-12 TO S-217	10100	1991 Kershaw
141	US	521	S-12 TO S-217	10200	1992 Kershaw
141	US	521	S-12 TO S-217	9300	1993 Kershaw
141	US	521	S-12 TO S-217	9200	1994 Kershaw
141	US	521	S-12 TO S-217	10400	1995 Kershaw
141	US	521	S-12 TO S-217	11900	1996 Kershaw
141	US	521	S-12 TO S-217	12200	1997 Kershaw
141	US	521	S-12 TO S-217	12200	1998 Kershaw
141	US	521	S-12 TO S-217	13100	1999 Kershaw
141	US	521	S-12 TO S-217	12300	2000 Kershaw
141	US	521	S-12 TO S-217	13800	2001 Kershaw
141	US	521	S-12 TO S-217	13600	2002 Kershaw
141	US	521	S-12 TO S-217	14300	2003 Kershaw
141	US	521	S-12 TO S-217	15200	2004 Kershaw
141	US	521	S-12 TO S-217	15200	2005 Kershaw
141	US	521	S-12 TO S-217	14400	2006 Kershaw
141	US	521	S-12 TO S-217	15800	2007 Kershaw

141	US	521	S-12 TO S-217	15300	2008 Kershaw
141	US	521	S-12 TO S-217	14700	2009 Kershaw
143	US	521	S-217 TO S-45	11900	1987 Kershaw
143	US	521	S-217 TO S-45	10900	1988 Kershaw
143	US	521	S-217 TO S-45	11200	1989 Kershaw
143	US	521	S-217 TO S-45	13500	1990 Kershaw
143	US	521	S-217 TO S-45	10800	1992 Kershaw
143	US	521	S-217 TO S-45	10000	1993 Kershaw
143	US	521	S-217 TO S-45	8900	1994 Kershaw
143	US	521	S-217 TO S-45	9000	1995 Kershaw
143	US	521	S-217 TO S-45	9200	1996 Kershaw
143	US	521	S-217 TO S-45	9300	1997 Kershaw
143	US	521	S-217 TO S-45	9700	1998 Kershaw
143	US	521	S-217 TO S-45	9700	1999 Kershaw
143	US	521	S-217 TO S-45	9700	2000 Kershaw
143	US	521	S-217 TO S-45	10200	2001 Kershaw
143	US	521	S-217 TO S-45	9700	2002 Kershaw
143	US	521	S-217 TO S-45	10500	2003 Kershaw
143	US	521	S-217 TO S-45	11300	2004 Kershaw
143	US	521	S-217 TO S-45	11100	2005 Kershaw
143	US	521	S-217 TO S-45	10700	2006 Kershaw
143	US	521	S-217 TO S-45	10300	2007 Kershaw
143	US	521	S-217 TO S-45	10900	2008 Kershaw
143	US	521	S-217 TO S-45	9900	2009 Kershaw
145	US	521	S-45 TO U.S. 1	12600	1987 Kershaw
145	US	521	S-45 TO U.S. 1	12700	1988 Kershaw
145	US	521	S-45 TO U.S. 1	8900	1989 Kershaw
145	US	521	S-45 TO U.S. 1	8500	1990 Kershaw
145	US	521	S-45 TO U.S. 1	8100	1991 Kershaw
145	US	521	S-45 TO U.S. 1	7800	1992 Kershaw
145	US	521	S-45 TO U.S. 1	7100	1993 Kershaw
145	US	521	S-45 TO U.S. 1	7300	1994 Kershaw
145	US	521	S-45 TO U.S. 1	7100	1995 Kershaw
145	US	521	S-45 TO U.S. 1	8500	1996 Kershaw
145	US	521	S-45 TO U.S. 1	8000	1997 Kershaw
145	US	521	S-45 TO U.S. 1	9600	1998 Kershaw
145	US	521	S-45 TO U.S. 1	8700	1999 Kershaw
145	US	521	S-45 TO U.S. 1	7100	2000 Kershaw
145	US	521	S-45 TO U.S. 1	8300	2001 Kershaw
145	US	521	S-45 TO U.S. 1	7900	2002 Kershaw
145	US	521	S-45 TO U.S. 1	8400	2003 Kershaw
145	US	521	S-45 TO U.S. 1	8500	2004 Kershaw
145	US	521	S-45 TO U.S. 1	8100	2005 Kershaw
145	US	521	S-45 TO U.S. 1	8000	2006 Kershaw
145	US	521	S-45 TO U.S. 1	8000	2007 Kershaw
145	US	521	S-45 TO U.S. 1	8300	2008 Kershaw
145	US	521	S-45 TO U.S. 1	7700	2009 Kershaw

151	US	521	S.C. 97 TO S-890	5700	1987 Kershaw
151	US	521	S.C. 97 TO S-890	5600	1988 Kershaw
151	US	521	S.C. 97 TO S-890	6700	1989 Kershaw
151	US	521	S.C. 97 TO S-890	6900	1990 Kershaw
151	US	521	S.C. 97 TO S-890	6400	1991 Kershaw
151	US	521	S.C. 97 TO S-890	6800	1992 Kershaw
151	US	521	S.C. 97 TO S-890	6000	1993 Kershaw
151	US	521	S.C. 97 TO S-890	6200	1994 Kershaw
151	US	521	S.C. 97 TO S-890	6900	1995 Kershaw
151	US	521	S.C. 97 TO S-890	6800	1996 Kershaw
151	US	521	S.C. 97 TO S-890	6900	1997 Kershaw
151	US	521	S.C. 97 TO S-890	6800	1998 Kershaw
151	US	521	S.C. 97 TO S-890	7800	1999 Kershaw
151	US	521	S.C. 97 TO S-890	8000	2000 Kershaw
151	US	521	S.C. 97 TO S-890	7900	2001 Kershaw
151	US	521	S.C. 97 TO S-890	8300	2002 Kershaw
151	US	521	S.C. 97 TO S-890	7800	2003 Kershaw
151	US	521	S.C. 97 TO S-890	8100	2004 Kershaw
151	US	521	S.C. 97 TO S-890	8200	2005 Kershaw
151	US	521	S.C. 97 TO S-890	8000	2006 Kershaw
151	US	521	S.C. 97 TO S-890	8000	2007 Kershaw
151	US	521	S.C. 97 TO S-890	7900	2008 Kershaw
151	US	521	S.C. 97 TO S-890	8200	2009 Kershaw
191	SC	97	S-912 TO S-130	3200	1987 Kershaw
191	SC	97	S-912 TO S-130	3000	1988 Kershaw
191	SC	97	S-912 TO S-130	2700	1989 Kershaw
191	SC	97	S-912 TO S-130	3100	1990 Kershaw
191	SC	97	S-912 TO S-130	2500	1991 Kershaw
191	SC	97	S-912 TO S-130	2900	1992 Kershaw
191	SC	97	S-912 TO S-130	3300	1993 Kershaw
191	SC	97	S-912 TO S-130	3000	1994 Kershaw
191	SC	97	S-912 TO S-130	3500	1995 Kershaw
191	SC	97	S-912 TO S-130	3500	1996 Kershaw
191	SC	97	S-912 TO S-130	3300	1997 Kershaw
191	SC	97	S-912 TO S-130	3400	1998 Kershaw
191	SC	97	S-912 TO S-130	3800	1999 Kershaw
191	SC	97	S-912 TO S-130	3200	2000 Kershaw
191	SC	97	S-912 TO S-130	3500	2001 Kershaw
191	SC	97	S-912 TO S-130	3900	2002 Kershaw
191	SC	97	S-912 TO S-130	3000	2003 Kershaw
191	SC	97	S-912 TO S-130	3300	2004 Kershaw
191	SC	97	S-912 TO S-130	3500	2005 Kershaw
191	SC	97	S-912 TO S-130	3500	2006 Kershaw
191	SC	97	S-912 TO S-130	3500	2007 Kershaw
191	SC	97	S-912 TO S-130	3200	2008 Kershaw
191	SC	97	S-912 TO S-130	3500	2009 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4200	1987 Kershaw

193	SC	97	S-130 TO U.S. 521/601	4100	1988 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4100	1989 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4300	1990 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4200	1991 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4100	1992 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3700	1993 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3700	1994 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3400	1995 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3200	1996 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3600	1997 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3800	1998 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3600	1999 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3500	2000 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4100	2001 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4100	2002 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4000	2003 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4000	2004 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4400	2005 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4100	2006 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4000	2007 Kershaw
193	SC	97	S-130 TO U.S. 521/601	3800	2008 Kershaw
193	SC	97	S-130 TO U.S. 521/601	4200	2009 Kershaw
323	S-	45	S.C. 34 TO S-79	1900	1987 Kershaw
323	S-	45	S.C. 34 TO S-79	2100	1988 Kershaw
323	S-	45	S.C. 34 TO S-79	1800	1989 Kershaw
323	S-	45	S.C. 34 TO S-79	2000	1990 Kershaw
323	S-	45	S.C. 34 TO S-79	2500	1991 Kershaw
323	S-	45	S.C. 34 TO S-79	1900	1992 Kershaw
323	S-	45	S.C. 34 TO S-79	1850	1993 Kershaw
323	S-	45	S.C. 34 TO S-79	2200	1994 Kershaw
323	S-	45	S.C. 34 TO S-79	2100	1995 Kershaw
323	S-	45	S.C. 34 TO S-79	2000	1996 Kershaw
323	S-	45	S.C. 34 TO S-79	2400	1997 Kershaw
323	S-	45	S.C. 34 TO S-79	1400	1998 Kershaw
323	S-	45	S.C. 34 TO S-79	2000	1999 Kershaw
323	S-	45	S.C. 34 TO S-79	2300	2000 Kershaw
323	S-	45	S.C. 34 TO S-79	2400	2001 Kershaw
323	S-	45	S.C. 34 TO S-79	2500	2002 Kershaw
323	S-	45	S.C. 34 TO S-79	2900	2003 Kershaw
323	S-	45	S.C. 34 TO S-79	2600	2004 Kershaw
323	S-	45	S.C. 34 TO S-79	2800	2005 Kershaw
323	S-	45	S.C. 34 TO S-79	2600	2006 Kershaw
323	S-	45	S.C. 34 TO S-79	2600	2007 Kershaw
323	S-	45	S.C. 34 TO S-79	2500	2008 Kershaw
323	S-	45	S.C. 34 TO S-79	2400	2009 Kershaw
325	S-	45	S-79 TO U.S. 521	6300	1987 Kershaw
325	S-	45	S-79 TO U.S. 521	6000	1988 Kershaw

325	S-	45	S-79 TO U.S. 521	6400	1989 Kershaw
325	S-	45	S-79 TO U.S. 521	6600	1990 Kershaw
325	S-	45	S-79 TO U.S. 521	5600	1991 Kershaw
325	S-	45	S-79 TO U.S. 521	5800	1992 Kershaw
325	S-	45	S-79 TO U.S. 521	5700	1993 Kershaw
325	S-	45	S-79 TO U.S. 521	6100	1994 Kershaw
325	S-	45	S-79 TO U.S. 521	6400	1995 Kershaw
325	S-	45	S-79 TO U.S. 521	6600	1996 Kershaw
325	S-	45	S-79 TO U.S. 521	7700	1997 Kershaw
325	S-	45	S-79 TO U.S. 521	7750	1998 Kershaw
325	S-	45	S-79 TO U.S. 521	5200	1999 Kershaw
325	S-	45	S-79 TO U.S. 521	7300	2000 Kershaw
325	S-	45	S-79 TO U.S. 521	6900	2001 Kershaw
325	S-	45	S-79 TO U.S. 521	7000	2002 Kershaw
325	S-	45	S-79 TO U.S. 521	7700	2003 Kershaw
325	S-	45	S-79 TO U.S. 521	7500	2004 Kershaw
325	S-	45	S-79 TO U.S. 521	7500	2005 Kershaw
325	S-	45	S-79 TO U.S. 521	7200	2006 Kershaw
325	S-	45	S-79 TO U.S. 521	7300	2007 Kershaw
325	S-	45	S-79 TO U.S. 521	7500	2008 Kershaw
325	S-	45	S-79 TO U.S. 521	6100	2009 Kershaw
327	S-	45	U.S. 521 TO S-147	4900	1987 Kershaw
327	S-	45	U.S. 521 TO S-147	4700	1988 Kershaw
327	S-	45	U.S. 521 TO S-147	5400	1989 Kershaw
327	S-	45	U.S. 521 TO S-147	4300	1990 Kershaw
327	S-	45	U.S. 521 TO S-147	3900	1991 Kershaw
327	S-	45	U.S. 521 TO S-147	3800	1992 Kershaw
327	S-	45	U.S. 521 TO S-147	4300	1993 Kershaw
327	S-	45	U.S. 521 TO S-147	4800	1994 Kershaw
327	S-	45	U.S. 521 TO S-147	4000	1995 Kershaw
327	S-	45	U.S. 521 TO S-147	4200	1996 Kershaw
327	S-	45	U.S. 521 TO S-147	4500	1997 Kershaw
327	S-	45	U.S. 521 TO S-147	2300	1998 Kershaw
327	S-	45	U.S. 521 TO S-147	3800	1999 Kershaw
327	S-	45	U.S. 521 TO S-147	4300	2000 Kershaw
327	S-	45	U.S. 521 TO S-147	4600	2001 Kershaw
327	S-	45	U.S. 521 TO S-147	5200	2002 Kershaw
327	S-	45	U.S. 521 TO S-147	5100	2003 Kershaw
327	S-	45	U.S. 521 TO S-147	4200	2004 Kershaw
327	S-	45	U.S. 521 TO S-147	5100	2005 Kershaw
327	S-	45	U.S. 521 TO S-147	4800	2006 Kershaw
327	S-	45	U.S. 521 TO S-147	5200	2007 Kershaw
327	S-	45	U.S. 521 TO S-147	5200	2008 Kershaw
327	S-	45	U.S. 521 TO S-147	4700	2009 Kershaw
329	S-	45	S-147 TO U.S. 1	3900	1988 Kershaw
329	S-	45	S-147 TO U.S. 1	3800	1989 Kershaw
329	S-	45	S-147 TO U.S. 1	4300	1990 Kershaw

329	S- 45	S-147 TO U.S. 1	4500	1991	Kershaw
329	S- 45	S-147 TO U.S. 1	4800	1992	Kershaw
329	S- 45	S-147 TO U.S. 1	4900	1993	Kershaw
329	S- 45	S-147 TO U.S. 1	4800	1994	Kershaw
329	S- 45	S-147 TO U.S. 1	5500	1995	Kershaw
329	S- 45	S-147 TO U.S. 1	5500	1996	Kershaw
329	S- 45	S-147 TO U.S. 1	5700	1997	Kershaw
329	S- 45	S-147 TO U.S. 1	5750	1998	Kershaw
329	S- 45	S-147 TO U.S. 1	5400	1999	Kershaw
329	S- 45	S-147 TO U.S. 1	6400	2000	Kershaw
329	S- 45	S-147 TO U.S. 1	7100	2001	Kershaw
329	S- 45	S-147 TO U.S. 1	7200	2002	Kershaw
329	S- 45	S-147 TO U.S. 1	7300	2003	Kershaw
329	S- 45	S-147 TO U.S. 1	6300	2004	Kershaw
329	S- 45	S-147 TO U.S. 1	7100	2005	Kershaw
329	S- 45	S-147 TO U.S. 1	7700	2006	Kershaw
329	S- 45	S-147 TO U.S. 1	7900	2007	Kershaw
329	S- 45	S-147 TO U.S. 1	7500	2008	Kershaw
329	S- 45	S-147 TO U.S. 1	6900	2009	Kershaw
357	S- 130	U.S. 1 TO S-35	5700	1987	Kershaw
357	S- 130	U.S. 1 TO S-35	5400	1988	Kershaw
357	S- 130	U.S. 1 TO S-35	5600	1989	Kershaw
357	S- 130	U.S. 1 TO S-35	6900	1990	Kershaw
357	S- 130	U.S. 1 TO S-35	6600	1991	Kershaw
357	S- 130	U.S. 1 TO S-35	7200	1992	Kershaw
357	S- 130	U.S. 1 TO S-35	7500	1993	Kershaw
357	S- 130	U.S. 1 TO S-35	7300	1994	Kershaw
357	S- 130	U.S. 1 TO S-35	6900	1995	Kershaw
357	S- 130	U.S. 1 TO S-35	6700	1996	Kershaw
357	S- 130	U.S. 1 TO S-35	7800	1997	Kershaw
357	S- 130	U.S. 1 TO S-35	8000	1998	Kershaw
357	S- 130	U.S. 1 TO S-35	8900	1999	Kershaw
357	S- 130	U.S. 1 TO S-35	9400	2000	Kershaw
357	S- 130	U.S. 1 TO S-35	9200	2001	Kershaw
357	S- 130	U.S. 1 TO S-35	9600	2002	Kershaw
357	S- 130	U.S. 1 TO S-35	9200	2003	Kershaw
357	S- 130	U.S. 1 TO S-35	9700	2004	Kershaw
357	S- 130	U.S. 1 TO S-35	10000	2005	Kershaw
357	S- 130	U.S. 1 TO S-35	9500	2006	Kershaw
357	S- 130	U.S. 1 TO S-35	9800	2007	Kershaw
357	S- 130	U.S. 1 TO S-35	9200	2008	Kershaw
357	S- 130	U.S. 1 TO S-35	9500	2009	Kershaw
359	S- 130	S-35 TO S.C. 97	3700	1987	Kershaw
359	S- 130	S-35 TO S.C. 97	3800	1988	Kershaw
359	S- 130	S-35 TO S.C. 97	3900	1989	Kershaw
359	S- 130	S-35 TO S.C. 97	4500	1990	Kershaw
359	S- 130	S-35 TO S.C. 97	4200	1991	Kershaw

359	S-	130	S-35 TO S.C. 97	4800	1992 Kershaw
359	S-	130	S-35 TO S.C. 97	4300	1993 Kershaw
359	S-	130	S-35 TO S.C. 97	3600	1994 Kershaw
359	S-	130	S-35 TO S.C. 97	4100	1995 Kershaw
359	S-	130	S-35 TO S.C. 97	4400	1996 Kershaw
359	S-	130	S-35 TO S.C. 97	5000	1997 Kershaw
359	S-	130	S-35 TO S.C. 97	5600	1998 Kershaw
359	S-	130	S-35 TO S.C. 97	6100	1999 Kershaw
359	S-	130	S-35 TO S.C. 97	6200	2000 Kershaw
359	S-	130	S-35 TO S.C. 97	6200	2001 Kershaw
359	S-	130	S-35 TO S.C. 97	6400	2002 Kershaw
359	S-	130	S-35 TO S.C. 97	6200	2003 Kershaw
359	S-	130	S-35 TO S.C. 97	6400	2004 Kershaw
359	S-	130	S-35 TO S.C. 97	7000	2005 Kershaw
359	S-	130	S-35 TO S.C. 97	6500	2006 Kershaw
359	S-	130	S-35 TO S.C. 97	6900	2007 Kershaw
359	S-	130	S-35 TO S.C. 97	6800	2008 Kershaw
359	S-	130	S-35 TO S.C. 97	6600	2009 Kershaw

Appendix D

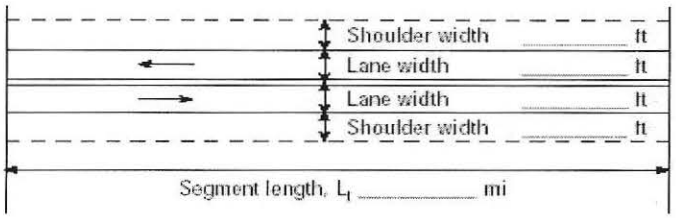
CAPACITY ANALYSIS PRINTOUTS

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	KNIGHTS HILL - LIBERTY HILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	565 veh/h
Directional split	75 / 25
Peak-hour factor, PHF	0.90
No-passing zone	100
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	4

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.93
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.965
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	699
v_p * highest directional split proportion[2] (pc/h)	524

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	1.1 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	1.0 *mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	42.9 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.5
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	34.0

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	0.94
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.980
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	681
v_p * highest directional split proportion[2] (pc/h)	511
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	45.0
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	19.9
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	64.9

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, $v/c=V_p/3,200$	0.22
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	204
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	734
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	6.0

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

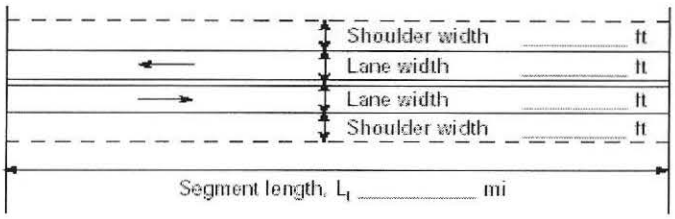
BKH - LHEX

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	KNIGHTS HILL - LIBERTY HILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: *2035 Volumes; Improved 2-lane*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	820 veh/h
Directional split	75 / 25
Peak-hour factor, PHF	0.90
No-passing zone	100
% Trucks and Buses , P_T	6 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	4

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.93
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.949
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1033
v_p * highest directional split proportion[2] (pc/h)	775

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	1.0 *mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	44.0 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	2.5
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	33.5

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	0.94
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.971
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	998
v_p * highest directional split proportion[2] (pc/h)	749
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	58.4
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	13.5
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	71.9

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.32
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	296
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	1066
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	8.8

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

HCS+™ Version 5.5

Generated: 4/19/2012 5:21 PM

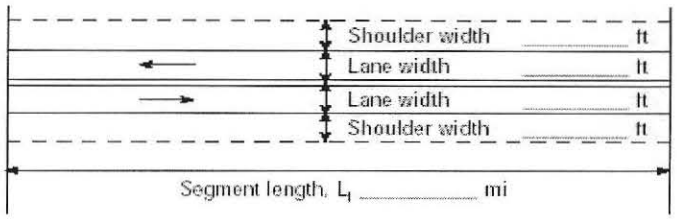
BKH - LHI235

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	LIBERTY HILL - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	387 veh/h
Directional split	73 / 27
Peak-hour factor, PHF	0.86
No-passing zone	75
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.973
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	463
v_p * highest directional split proportion[2] (pc/h)	338

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	1.1 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	33.9 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.6
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	26.7

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	452
v_p * highest directional split proportion[2] (pc/h)	330
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	32.8
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	23.2
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	56.0

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.14
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	45
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	155
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	1.7

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

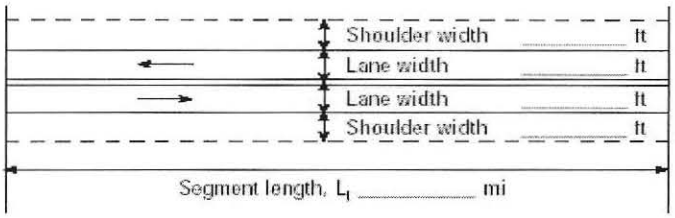
BLH - BREXA

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	LIBERTY HILL - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	561 veh/h
Directional split	73 / 27
Peak-hour factor, PHF	0.86
No-passing zone	75
% Trucks and Buses , P_T	6 %
% Recreational vehicles, P_R	0%
Access points/ mi	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.988
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	660
v_p * highest directional split proportion[2] (pc/h)	482

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	mi/h	Adj. for access points, f_A (Exhibit 20-6)	10.0 mi/h
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.0 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	3.1
Average travel speed, ATS (mi/h) ATS=FFS-0.00776v_p-f_{np}	26.8

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.994
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	656
v_p * highest directional split proportion[2] (pc/h)	479
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	43.8
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	19.2
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	63.0

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.21
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= 0.25L_t(V/PHF)	65
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=V*L_t	224
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	2.4

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

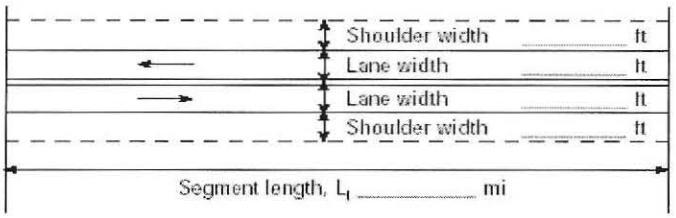
BLH - BR35(2A

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	CHESTNUT FERRY
Agency or Company	SPRAGUE & SPRAGUE	From/To	DEKALB - EHRENCLOU
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	580 veh/h
Directional split	57 / 43
Peak-hour factor, PHF	0.66
No-passing zone	100
% Trucks and Buses , P_T	2 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.996
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	882
v_p * highest directional split proportion[2] (pc/h)	503

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	2.4 *mi/h*
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	32.6 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	2.8
Average travel speed, ATS (*mi/h*) ATS=FFS-0.00776v_p-f_{np}	22.9

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.998
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	881
v_p * highest directional split proportion[2] (pc/h)	502
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	53.9
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	13.8
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	67.7

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.28
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= 0.25L_t(V/PHF)	110
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	290
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	4.8

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

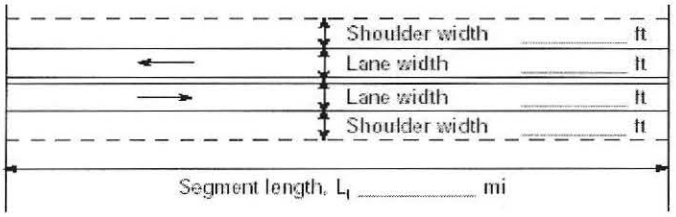
CFD-EEXA

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	CHESTNUT FERRY
Agency or Company	SPRAGUE & SPRAGUE	From/To	DEKALB - EHRENCLOU
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	824 veh/h
Directional split	57 / 43
Peak-hour factor, PHF	0.66
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	0%
Access points/ mi	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.995
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1255
v_p * highest directional split proportion[2] (pc/h)	715

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	10.0 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.0 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.0
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	23.3

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1248
v_p * highest directional split proportion[2] (pc/h)	711
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	66.6
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	9.7
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	76.3

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, v/c=V_p/ 3,200	0.39
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t(V/PHF)$	156
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=$V*L_t$	412
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	6.7

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

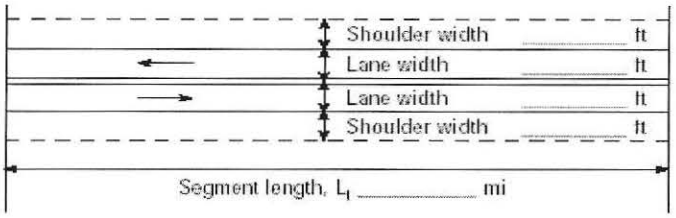
CFD-Ei235A

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	EHRENCLOU
Agency or Company	SPRAGUE & SPRAGUE	From/To	CHESTNUT FERRY - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	435 veh/h
Directional split	60 / 40
Peak-hour factor, PHF	0.68
No-passing zone	84
% Trucks and Buses , P_T	3 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	14

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T$-1)+$P_R(E_R$-1))	0.994
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	644
v_p * highest directional split proportion[2] (pc/h)	386

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.4 *mi/h*
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	3.5 *mi/h*
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	41.1 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.3
Average travel speed, ATS (*mi/h*) ATS=FFS-0.00776v_p-f_{np}	32.8

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T$-1)+$P_R(E_R$-1))	0.997
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	642
v_p * highest directional split proportion[2] (pc/h)	385
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.00087v_p}$)	43.1
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	18.7
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	61.8

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.20
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= 0.25L_t(V/PHF)	192
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	522
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	5.9

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

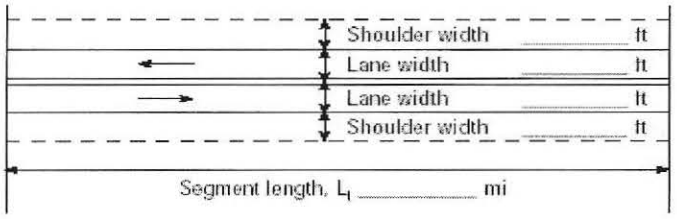
ECF-BREXA

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	EHRENCLOU
Agency or Company	SPRAGUE & SPRAGUE	From/To	CHESTNUT FERRY - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	631 veh/h
Directional split	60 / 40
Peak-hour factor, PHF	0.68
No-passing zone	84
% Trucks and Buses , P_T	9 %
% Recreational vehicles, P_R	0%
Access points/ mi	14

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.982
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	945
v_p * highest directional split proportion[2] (pc/h)	567

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	3.5 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	41.5 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.4
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	31.8

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.991
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	936
v_p * highest directional split proportion[2] (pc/h)	562
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	56.1
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	12.4
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	68.5

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.30
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t(V/PHF)$	278
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=$V*L_t$	757
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	8.8

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

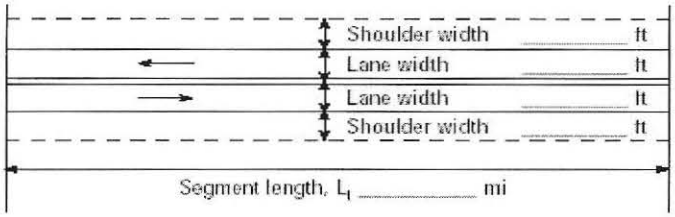
ECF-BR35 i 2A

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	BROAD - MILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	556 veh/h
Directional split	50 / 50
Peak-hour factor, PHF	0.74
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	759
v_p * highest directional split proportion[2] (pc/h)	380

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.0 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.2
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	25.9

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.995
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	755
v_p * highest directional split proportion[2] (pc/h)	378
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	48.5
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	16.5
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	65.1

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.24
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	94
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	278
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	3.6

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

HCS+™ Version 5.5

Generated: 4/21/2012 12:02 PM

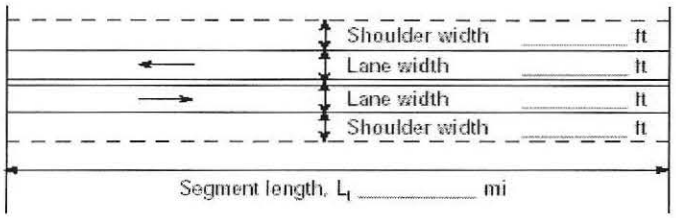
YBR-MEXA

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	BROAD - MILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improve 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	807 veh/h
Directional split	50 / 50
Peak-hour factor, PHF	0.74
No-passing zone	100
% Trucks and Buses , P_T	7 %
% Recreational vehicles, P_R	0%
Access points/ mi	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.986
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1106
v_p * highest directional split proportion[2] (pc/h)	553

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	10.0 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.0 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.3
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	24.1

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.993
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1098
v_p * highest directional split proportion[2] (pc/h)	549
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	61.9
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	11.7
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	73.6

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, v/c=V_p/ 3,200	0.35
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t$(V/PHF)	136
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=V*L_t	404
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	5.6

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

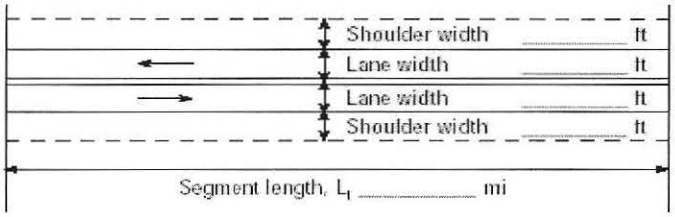
YBR-M35I2A

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	MILL - RIPPONDON
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	564 veh/h
Directional split	69 / 31
Peak-hour factor, PHF	0.58
No-passing zone	100
% Trucks and Buses , P_T	3 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	37

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.93
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.974
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1074
v_p * highest directional split proportion[2] (pc/h)	741

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	9.3 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.8 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	2.4
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	25.0

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	0.94
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.985
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1050
v_p * highest directional split proportion[2] (pc/h)	725
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	60.3
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	12.0
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	72.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.34
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	73
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	169
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	2.9

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

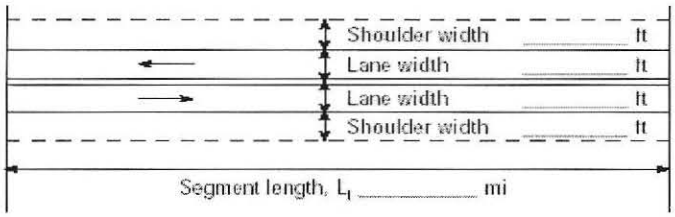
YM-RPEXA

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	MILL - RIPPONDON
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	822 veh/h
Directional split	69 / 31
Peak-hour factor, PHF	0.58
No-passing zone	100
% Trucks and Buses , P_T	9 %
% Recreational vehicles, P_R	0%
Access points/ mi	37

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.99
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.957
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1496
v_p * highest directional split proportion[2] (pc/h)	1032

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	mi/h	Adj. for access points, f_A (Exhibit 20-6)	9.3 mi/h
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.8 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	1.6
Average travel speed, ATS (mi/h) ATS=FFS-0.00776v_p-f_{np}	22.5

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1417
v_p * highest directional split proportion[2] (pc/h)	978
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	71.2
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	8.2
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	79.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, v/c=V_p/ 3,200	0.47
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= 0.25L_t(V/PHF)	106
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=V*L_t	247
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	4.7

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

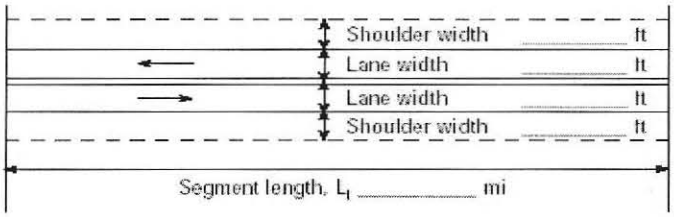
YM-RP35i2A

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	RIPPONDON
Agency or Company	SPRAGUE & SPRAGUE	From/To	YORK - DEKALB
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	167 veh/h
Directional split	72 / 28
Peak-hour factor, PHF	0.51
No-passing zone	100
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	27

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.973
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	337
v_p * highest directional split proportion[2] (pc/h)	243

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	2.4 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	6.8 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.8 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	4.2
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	29.0

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	329
v_p * highest directional split proportion[2] (pc/h)	237
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	25.1
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	25.1
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	50.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	B
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.11
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	25
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	50
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	0.9

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

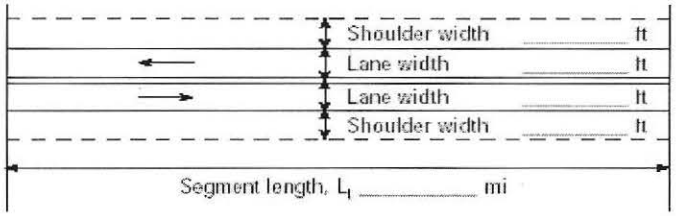
RY-DEXA

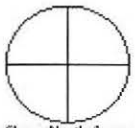
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	RIPPONDON
Agency or Company	SPRAGUE & SPRAGUE	From/To	YORK - DEKALB
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	AM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	270 veh/h
Directional split	69 / 31
Peak-hour factor, PHF	0.51
No-passing zone	100
% Trucks and Buses , P_T	23 %
% Recreational vehicles, P_R	0%
Access points/ mi	27

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.956
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	554
v_p * highest directional split proportion[2] (pc/h)	382

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	6.8 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	38.3 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	4.0
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	29.9

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.978
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	542
v_p * highest directional split proportion[2] (pc/h)	374
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	37.9
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	21.5
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	59.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.17
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t(V/PHF)$	40
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=$V*L_t$	81
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	1.3

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

HCS+™ Version 5.5

Generated: 4/21/2012 12:54 PM

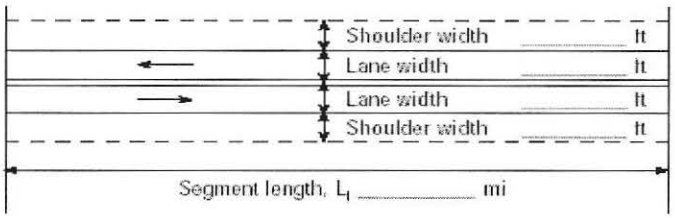
RY-D35i2A

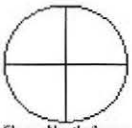
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	KNIGHTS HILL - LIBERTY HILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	704 veh/h
Directional split	69 / 31
Peak-hour factor, PHF	0.90
No-passing zone	100
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	4

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.93
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.965
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	871
v_p * highest directional split proportion[2] (pc/h)	601

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	1.1 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	1.0 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	42.9 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	2.9
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	33.3

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	0.94
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.980
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	849
v_p * highest directional split proportion[2] (pc/h)	586
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	52.6
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	14.1
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	66.7

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.27
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	254
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	915
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	7.6

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

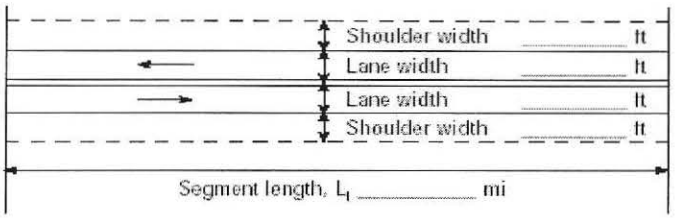
BKH-LHEXP

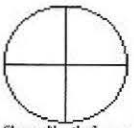
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	KNIGHTS HILL - LIBERTY HILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: *2035 Volumes; Improved 2-lane*

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	1022 veh/h
Directional split	69 / 31
Peak-hour factor, PHF	0.90
No-passing zone	100
% Trucks and Buses , P_T	6 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	4

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.99
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.971
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1181
v_p * highest directional split proportion[2] (pc/h)	815

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	1.0 *mi/h*
		Free-flow speed, FFS ($FSS=BFFS-f_{LS}-f_A$)	44.0 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	2.1
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	32.7

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	1.000
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1136
v_p * highest directional split proportion[2] (pc/h)	784
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	63.2
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	11.1
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	74.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, v/c=V_p/ 3,200	0.37
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	369
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	1329
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	11.3

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

HCS+™ Version 5.5

Generated: 4/21/2012 10:33 AM

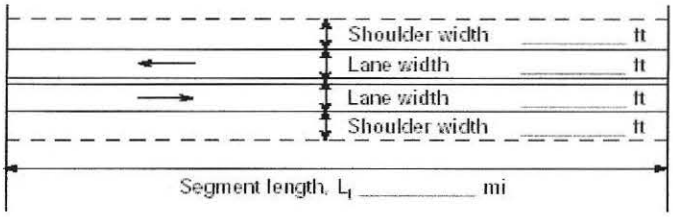
BK-H-LH35(2)P

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	LIBERTY HILL - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	428 veh/h
Directional split	64 / 36
Peak-hour factor, PHF	0.89
No-passing zone	75
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.973
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	494
v_p * highest directional split proportion[2] (pc/h)	316

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	1.1 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	33.9 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.6
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	26.5

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	483
v_p * highest directional split proportion[2] (pc/h)	309
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	34.6
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	20.9
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	55.5

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.15
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	48
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	171
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	1.8

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

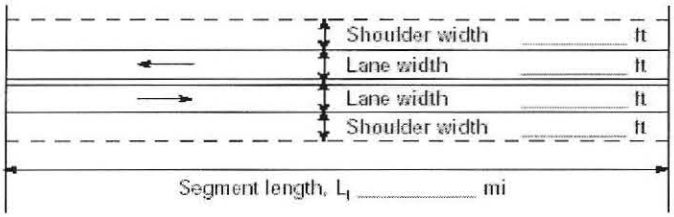
BLH-BREXp

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	BOYKIN
Agency or Company	SPRAGUE & SPRAGUE	From/To	LIBERTY HILL - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	621 veh/h
Directional split	64 / 36
Peak-hour factor, PHF	0.89
No-passing zone	75
% Trucks and Buses , P_T	6 %
% Recreational vehicles, P_R	0%
Access points/ mi	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.988
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	706
v_p * highest directional split proportion[2] (pc/h)	452

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	10.0 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.0 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.9
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	26.6

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.994
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	702
v_p * highest directional split proportion[2] (pc/h)	449
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	46.0
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	16.6
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	62.6

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.22
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t(V/PHF)$	70
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=$V*L_t$	248
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	2.6

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

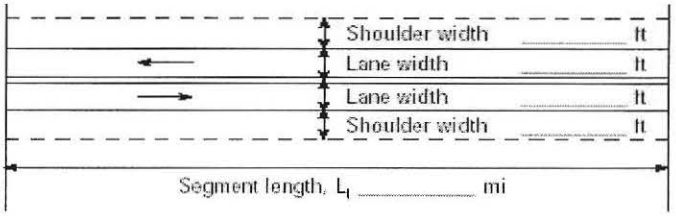
BLH-BR35i2p

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	CHESTNUT FERRY
Agency or Company	SPRAGUE & SPRAGUE	From/To	DEKALB - EHRENCLOU
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



Show North Arrow

☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	761 veh/h
Directional split	53 / 47
Peak-hour factor, PHF	0.86
No-passing zone	100
% Trucks and Buses , P_T	2 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	888
v_p * highest directional split proportion[2] (pc/h)	471

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	2.4 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	32.6 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	2.8
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	22.9

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.998
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	887
v_p * highest directional split proportion[2] (pc/h)	470
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	54.1
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	14.1
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	68.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.28
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	111
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	381
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	4.9

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

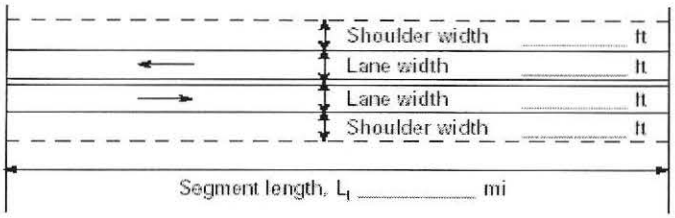
CFD-EEXP

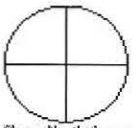
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	CHESTNUT FERRY
Agency or Company	SPRAGUE & SPRAGUE	From/To	DEKALB - EHRENCLOU
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: *Existing Volumes; Improved 2-lane*

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	1104 veh/h
Directional split	53 / 47
Peak-hour factor, PHF	0.86
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.995
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1290
v_p * highest directional split proportion[2] (pc/h)	684

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.0 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	1.9
Average travel speed, ATS (*mi/h*) ATS=FFS-0.00776v_p-f_{np}	23.1

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.0
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	1.000
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1284
v_p * highest directional split proportion[2] (pc/h)	681
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	67.7
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	9.3
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	77.0

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, v/c=V_p/ 3,200	0.40
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= 0.25L_t(V/PHF)	160
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	552
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	6.9

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

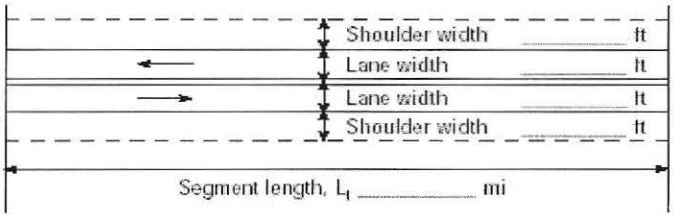
CFD-E35i2P

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	EHRENCLOU
Agency or Company	SPRAGUE & SPRAGUE	From/To	CHESTNUT FERRY - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	534 veh/h
Directional split	55 / 45
Peak-hour factor, PHF	0.85
No-passing zone	84
% Trucks and Buses , P_T	3 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	14

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T$-1)+$P_R(E_R$-1))	0.994
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	632
v_p * highest directional split proportion[2] (pc/h)	348

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.4 *mi/h*
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	3.5 *mi/h*
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	41.1 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.4
Average travel speed, ATS (*mi/h*) ATS=FFS-0.00776v_p-f_{np}	32.8

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T$-1)+$P_R(E_R$-1))	0.997
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	630
v_p * highest directional split proportion[2] (pc/h)	347
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	42.5
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	19.1
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	61.6

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.20
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= 0.25L_t(V/PHF)	188
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=V*L_t	641
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	5.7

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

HCS+™ Version 5.5

Generated: 4/21/2012 11:44 AM

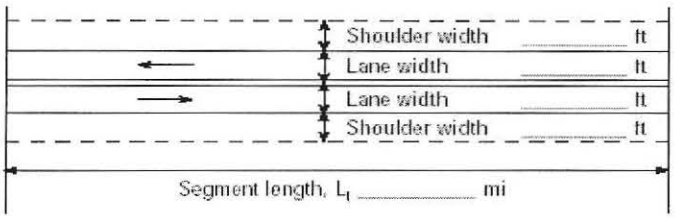
ECF-BREXP

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	EHRENCLOU
Agency or Company	SPRAGUE & SPRAGUE	From/To	CHESTNUT FERRY - BROAD
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	775 veh/h
Directional split	55 / 45
Peak-hour factor, PHF	0.85
No-passing zone	84
% Trucks and Buses , P_T	9 %
% Recreational vehicles, P_R	0%
Access points/ mi	14

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.982
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	928
v_p * highest directional split proportion[2] (pc/h)	510

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	mi/h	Adj. for access points, f_A (Exhibit 20-6)	3.5 mi/h
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	41.5 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.5
Average travel speed, ATS (mi/h) ATS=FFS-0.00776v_p-f_{np}	31.8

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.991
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	920
v_p * highest directional split proportion[2] (pc/h)	506
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	55.5
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	12.9
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	68.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.29
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= 0.25L_t(V/PHF)	274
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=V*L_t	930
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	8.6

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

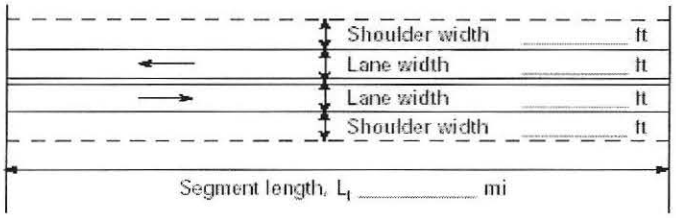
ECF-BR35 (2P

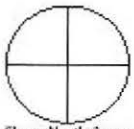
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	BROAD - MILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	577 veh/h
Directional split	53 / 47
Peak-hour factor, PHF	0.79
No-passing zone	100
% Trucks and Buses , P_T	5 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.990
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	738
v_p * highest directional split proportion[2] (pc/h)	391

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	10.0 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.0 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.3
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	26.0

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.995
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	734
v_p * highest directional split proportion[2] (pc/h)	389
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	47.5
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	16.9
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	64.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.23
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	91
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	289
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	3.5

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

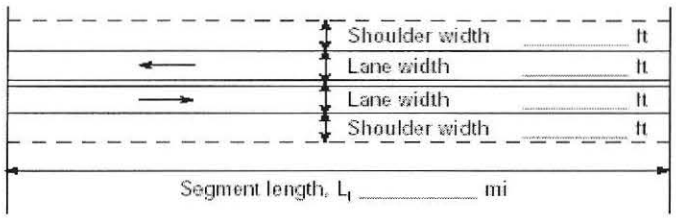
YBR-MEXp

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	BROAD - MILL
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	837 veh/h
Directional split	53 / 47
Peak-hour factor, PHF	0.79
No-passing zone	100
% Trucks and Buses , P_T	7 %
% Recreational vehicles, P_R	0%
Access points/ mi	40

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.2
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.986
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1074
v_p * highest directional split proportion[2] (pc/h)	569

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS FFS=S_{FM}+0.00776(V_f/ f_{HV})	mi/h	Adj. for access points, f_A (Exhibit 20-6)	10.0 mi/h
		Free-flow speed, FFS (FSS=BFFS-f_{LS}-f_A)	35.0 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.4
Average travel speed, ATS (mi/h) ATS=FFS-0.00776v_p-f_{np}	24.3

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, f_{HV}=1/ (1+ $P_T(E_T-1)+P_R(E_R-1)$)	0.993
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	1067
v_p * highest directional split proportion[2] (pc/h)	566
Base percent time-spent-following, BPTSF(%)=100(1-$e^{-0.000879v_p}$)	60.9
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	11.9
Percent time-spent-following, PTSF(%)=BPTSF+$f_{d/np}$	72.8

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	D
Volume to capacity ratio, v/c=V_p/ 3,200	0.34
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= 0.25L_t(V/PHF)	132
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=V*L_t	419
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	5.4

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

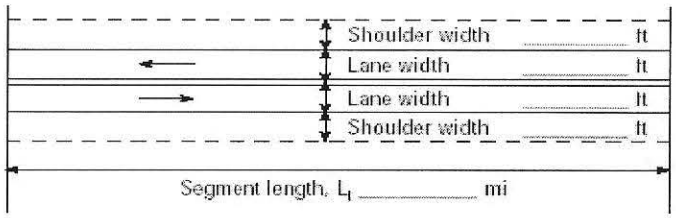
YBR-M35i2p

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	MILL - RIPPONDON
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	446 veh/h
Directional split	63 / 37
Peak-hour factor, PHF	0.82
No-passing zone	100
% Trucks and Buses , P_T	3 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	37

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.93
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.974
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	601
v_p * highest directional split proportion[2] (pc/h)	379

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	9.3 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.8 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.9
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	27.2

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	0.94
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.985
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	587
v_p * highest directional split proportion[2] (pc/h)	370
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	40.3
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	20.9
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	61.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, v/c=V_p/ 3,200	0.19
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	41
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	134
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	1.5

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

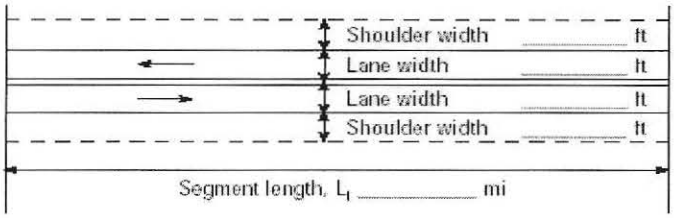
YM-RP EXp

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	YORK
Agency or Company	SPRAGUE & SPRAGUE	From/To	MILL - RIPPONDON
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☐ Level ☑ Rolling

Two-way hourly volume	647 veh/h
Directional split	63 / 37
Peak-hour factor, PHF	0.82
No-passing zone	100
% Trucks and Buses , P_T	9 %
% Recreational vehicles, P_R	0%
Access points/ mi	37

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	0.93
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.9
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.1
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.925
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	917
v_p * highest directional split proportion[2] (pc/h)	578

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	9.3 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.8 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	2.8
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	25.9

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	0.94
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.5
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.957
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	877
v_p * highest directional split proportion[2] (pc/h)	553
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	53.7
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	13.7
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	67.4

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	C
Volume to capacity ratio, $v/c=V_p/3{,}200$	0.29
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t(V/PHF)$	59
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=$V*L_t$	194
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	2.3

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

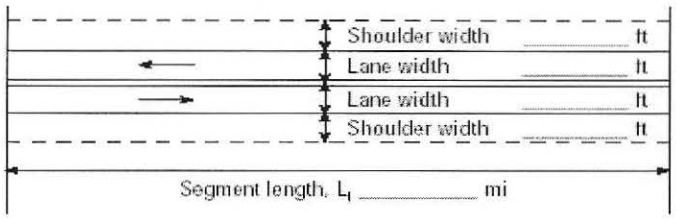
YM-RP35i2p

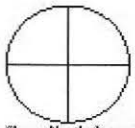
TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	RIPPONDON
Agency or Company	SPRAGUE & SPRAGUE	From/To	YORK - DEKALB
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2010

Project Description: *Existing Volumes; Existing Geometry*

Input Data





☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	133 veh/h
Directional split	62 / 38
Peak-hour factor, PHF	0.74
No-passing zone	100
% Trucks and Buses , P_T	4 %
% Recreational vehicles, P_R	0%
Access points/ *mi*	27

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.973
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	185
v_p * highest directional split proportion[2] (pc/h)	115

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	*mi/h*	Base free-flow speed, $BFFS_{FM}$	45.0 *mi/h*
Observed volume, V_f	*veh/h*	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	2.4 *mi/h*
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	*mi/h*	Adj. for access points, f_A (Exhibit 20-6)	6.8 *mi/h*
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	35.8 *mi/h*

Adj. for no-passing zones, f_{np} (*mi/h*) (Exhibit 20-11)	3.2
Average travel speed, ATS (*mi/h*) $ATS=FFS-0.00776v_p-f_{np}$	31.2

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.996
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	180
v_p * highest directional split proportion[2] (pc/h)	112
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	14.6
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	24.2
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	38.9

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	A
Volume to capacity ratio, v/c=V_p/ 3,200	0.06
Peak 15-min veh-miles of travel, VMT_{15} (veh- *mi*)= $0.25L_t(V/PHF)$	13
Peak-hour vehicle-miles of travel, VMT_{60}(veh- *mi*)=$V*L_t$	40
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	0.4

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

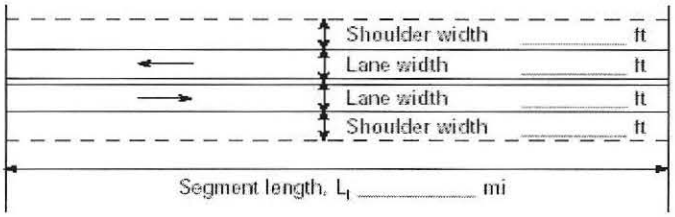
RY-DEXp

TWO-WAY TWO-LANE HIGHWAY SEGMENT WORKSHEET

General Information		Site Information	
Analyst	GGS	Highway	RIPPONDON
Agency or Company	SPRAGUE & SPRAGUE	From/To	YORK - DEKALB
Date Performed	4/19/12	Jurisdiction	SCDOT
Analysis Time Period	PM PEAK HOUR	Analysis Year	2035

Project Description: 2035 Volumes; Improved 2-lane

Input Data



☐ Class I highway ☑ Class II highway

Terrain ☑ Level ☐ Rolling

Two-way hourly volume	216 veh/h
Directional split	61 / 39
Peak-hour factor, PHF	0.74
No-passing zone	100
% Trucks and Buses , P_T	23 %
% Recreational vehicles, P_R	0%
Access points/ mi	27

Average Travel Speed

Grade adjustment factor, f_G (Exhibit 20-7)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-9)	1.7
Passenger-car equivalents for RVs, E_R (Exhibit 20-9)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.861
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	339
v_p * highest directional split proportion[2] (pc/h)	207

Free-Flow Speed from Field Measurement		Estimated Free-Flow Speed	
Field Measured speed, S_{FM}	mi/h	Base free-flow speed, $BFFS_{FM}$	45.0 mi/h
Observed volume, V_f	veh/h	Adj. for lane width and shoulder width[3], f_{LS} (Exhibit 20-5)	0.0 mi/h
Free-flow speed, FFS $FFS=S_{FM}+0.00776(V_f/f_{HV})$	mi/h	Adj. for access points, f_A (Exhibit 20-6)	6.8 mi/h
		Free-flow speed, FFS $(FSS=BFFS-f_{LS}-f_A)$	38.3 mi/h

Adj. for no-passing zones, f_{np} (mi/h) (Exhibit 20-11)	4.2
Average travel speed, ATS (mi/h) $ATS=FFS-0.00776v_p-f_{np}$	31.4

Percent Time-Spent-Following

Grade Adjustment factor, f_G (Exhibit 20-8)	1.00
Passenger-car equivalents for trucks, E_T (Exhibit 20-10)	1.1
Passenger-car equivalents for RVs, E_R (Exhibit 20-10)	1.0
Heavy-vehicle adjustment factor, $f_{HV}=1/(1+P_T(E_T-1)+P_R(E_R-1))$	0.978
Two-way flow rate[1], v_p (pc/h)=V/ (PHF * f_G * f_{HV})	299
v_p * highest directional split proportion[2] (pc/h)	182
Base percent time-spent-following, $BPTSF(\%)=100(1-e^{-0.000879v_p})$	23.1
Adj. for directional distribution and no-passing zone, $f_{d/np}$(%)(Exh. 20-12)	23.1
Percent time-spent-following, $PTSF(\%)=BPTSF+f_{d/np}$	46.2

Level of Service and Other Performance Measures

Level of service, LOS (Exhibit 20-3 for Class I or 20-4 for Class II)	B
Volume to capacity ratio, v/c=V_p/ 3,200	0.11
Peak 15-min veh-miles of travel, VMT_{15} (veh- mi)= $0.25L_t(V/PHF)$	22
Peak-hour vehicle-miles of travel, VMT_{60}(veh- mi)=$V*L_t$	65
Peak 15-min total travel time, TT_{15}(veh-h)= VMT_{15}/ATS	0.7

Notes

1. If Vp >= 3,200 pc/h, terminate analysis-the LOS is F.
2. If highest directional split Vp>= 1,700 pc/h, terminated anlysis-the LOS is F.

RY-D35i2p

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / CHESTNUT FERRY
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010 1CF EXEXA
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	1	1	2	0	1	1	0	0	1	0
Lane group	L	T	R	L	TR		L	LTR			LTR	
Volume, V (vph)	1	641	238	59	568	1	229	1	42	1	1	1
% Heavy vehicles, %HV	0		2	0	1	0	2	0	1	0	0	0
Peak-hour factor, PHF	0.25	0.93	0.80	0.51	0.87	0.25	0.72	0.25	0.81	0.25	0.25	0.25
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Extension of effective green, e	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Arrival type, AT	3	3	3	3	3		3	3			3	
Unit extension, UE	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Filtering/metering, I	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	1	0	0	0	0	0	1	0	0
Lane width	12.0	12.5	11.0	12.0	11.5		13.0	13.5			15.0	
Parking / Grade / Parking	N	-5	N	N	0	N	N	0	N	N	2	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0	0	0	0		0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NB Only	SB Only	07	08
Timing	G = 34.0	G =	G =	G =	G = 11.0	G = 1.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 64.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	4	689	297	116	657		159	215			12	
Lane group capacity, c	403	1983	1250	376	1869		314	313			30	
v/c ratio, X	0.01	0.35	0.24	0.31	0.35		0.51	0.69			0.40	
Total green ratio, g/C	0.53	0.53	0.80	0.53	0.53		0.17	0.17			0.02	
Uniform delay, d_1	7.1	8.6	1.6	8.4	8.6		24.0	24.9			31.2	
Progression factor, PF	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Delay calibration, k	0.11	0.11	0.11	0.11	0.11		0.11	0.26			0.11	
Incremental delay, d_2	0.0	0.1	0.1	0.5	0.1		1.3	6.2			8.5	
Initial queue delay, d_3	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Back of Queue	0.0	4.0	1.5	1.3	3.8		2.8	4.2			0.3	
Queue Storage Ratio												
Control delay	7.1	8.7	1.7	8.9	8.8		25.4	31.1			39.7	
Lane group LOS	A	A	A	A	A		C	C			D	
Approach delay	6.6			8.8			28.6			39.7		
Approach LOS	A			A			C			D		
Intersection delay	11.4			X_C = 0.43			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / CHESTNUT FERRY
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK PERIOD	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY 1CF3JEXA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	1	1	2	0	1	1	0	0	1	0
Lane group	L	T	R	L	TR		L	LTR			LTR	
Volume, V (vph)	1	929	345	86	824	1	332	1	61	1	1	1
% Heavy vehicles, %HV	0		2	0	1	0	2	0	1	0	0	0
Peak-hour factor, PHF	0.25	0.93	0.80	0.51	0.87	0.25	0.72	0.25	0.81	0.25	0.25	0.25
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Extension of effective green, e	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Arrival type, AT	3	3	3	3	3		3	3			3	
Unit extension, UE	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Filtering/metering, I	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	1	0	0	0	0	0	1	0	0
Lane width	12.0	12.5	11.0	12.0	11.5		13.0	13.5			15.0	
Parking / Grade / Parking	N	-5	N	N	0	N	N	0	N	N	2	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0	0	0	0		0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NB Only	SB Only	07	08
Timing	G = 34.0	G =	G =	G =	G = 11.0	G = 1.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 64.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	4	999	431	169	951		277	263			12	
Lane group capacity, c	261	1983	1250	236	1870		314	312			30	
v/c ratio, X	0.02	0.50	0.34	0.72	0.51		0.88	0.84			0.40	
Total green ratio, g/C	0.53	0.53	0.80	0.53	0.53		0.17	0.17			0.02	
Uniform delay, d_1	7.1	9.6	1.8	11.3	9.6		25.9	25.7			31.2	
Progression factor, PF	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Delay calibration, k	0.11	0.11	0.11	0.28	0.12		0.41	0.38			0.11	
Incremental delay, d_2	0.0	0.2	0.2	9.9	0.2		24.1	18.5			8.5	
Initial queue delay, d_3	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Back of Queue	0.0	6.5	2.5	2.8	6.3		6.4	5.8			0.3	
Queue Storage Ratio												
Control delay	7.1	9.8	2.0	21.3	9.9		50.0	44.2			39.7	
Lane group LOS	A	A	A	C	A		D	D			D	
Approach delay	7.5			11.6			47.1			39.7		
Approach LOS	A			B			D			D		
Intersection delay	16.0			X_C = 0.75			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / CHESTNUT FERRY
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2010 1CFEXEXP
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	1	1	2	0	1	1	0	0	1	0
Lane group	L	T	R	L	TR		L	LTR			LTR	
Volume, V (vph)	1	894	334	73	893	1	279	1	63	1	1	1
% Heavy vehicles, %HV	0		2	0	1	0	2	0	1	0	0	0
Peak-hour factor, PHF	0.25	0.94	0.94	0.83	0.82	0.25	0.84	0.25	0.72	0.25	0.25	0.25
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Extension of effective green, e	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Arrival type, AT	3	3	3	3	3		3	3			3	
Unit extension, UE	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Filtering/metering, I	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	1	0	0	0	0	0	1	0	0
Lane width	12.0	12.5	11.0	12.0	11.5		13.0	13.5			15.0	
Parking / Grade / Parking	N	-5	N	N	0	N	N	0	N	N	2	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0	0	0	0		0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NB Only	SB Only	07	08
Timing	G = 34.0	G =	G =	G =	G = 16.0	G = 1.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 69.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	4	951	355	88	1093		199	224			12	
Lane group capacity, c	174	1839	1273	220	1734		424	416			28	
v/c ratio, X	0.02	0.52	0.28	0.40	0.63		0.47	0.54			0.43	
Total green ratio, g/C	0.49	0.49	0.81	0.49	0.49		0.23	0.23			0.01	
Uniform delay, d_1	9.0	11.9	1.6	11.1	12.9		22.8	23.3			33.7	
Progression factor, PF	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Delay calibration, k	0.11	0.12	0.11	0.11	0.21		0.11	0.14			0.11	
Incremental delay, d_2	0.1	0.3	0.1	1.2	0.7		0.8	1.4			10.2	
Initial queue delay, d_3	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Back of Queue	0.0	7.1	1.9	1.2	9.0		3.6	4.2			0.3	
Queue Storage Ratio												
Control delay	9.0	12.2	1.7	12.3	13.6		23.7	24.7			43.9	
Lane group LOS	A	B	A	B	B		C	C			D	
Approach delay	9.3			13.5			24.2			43.9		
Approach LOS	A			B			C			D		
Intersection delay	13.3			X_C = 0.60			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 17 / CHESTNUT FERRY
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035 / CF35EXP
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	1	1	2	0	1	1	0	0	1	0
Lane group	L	T	R	L	TR		L	LTR			LTR	
Volume, V (vph)	1	1296	484	106	1295	1	405	1	91	1	1	1
% Heavy vehicles, %HV	0		2	0	1	0	2	0	1	0	0	0
Peak-hour factor, PHF	0.25	0.94	0.94	0.83	0.82	0.25	0.84	0.25	0.72	0.25	0.25	0.25
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Extension of effective green, e	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Arrival type, AT	3	3	3	3	3		3	3			3	
Unit extension, UE	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Filtering/metering, I	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	1	0	0	0	0	0	1	0	0
Lane width	12.0	12.5	11.0	12.0	11.5		13.0	13.5			15.0	
Parking / Grade / Parking	N	-5	N	N	0	N	N	0	N	N	2	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0	0	0	0		0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NB Only	SB Only	07	08
Timing	G = 34.0	G =	G =	G =	G = 16.0	G = 1.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 69.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	4	1379	515	128	1583		289	323			12	
Lane group capacity, c	113	1839	1273	110	1735		424	416			28	
v/c ratio, X	0.04	0.75	0.40	1.16	0.91		0.68	0.78			0.43	
Total green ratio, g/C	0.49	0.49	0.81	0.49	0.49		0.23	0.23			0.01	
Uniform delay, d_1	9.0	14.1	1.8	17.5	16.1		24.2	24.8			33.7	
Progression factor, PF	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Delay calibration, k	0.11	0.30	0.11	0.50	0.43		0.25	0.33			0.11	
Incremental delay, d_2	0.1	1.8	0.2	136.4	7.8		4.4	9.0			10.2	
Initial queue delay, d_3	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Back of Queue	0.0	12.8	3.2	5.5	18.8		5.8	6.9			0.3	
Queue Storage Ratio												
Control delay	9.2	15.8	2.0	153.9	23.9		28.6	33.8			43.9	
Lane group LOS	A	B	A	F	C		C	C			D	
Approach delay	12.1			33.6			31.4			43.9		
Approach LOS	B			C			C			D		
Intersection delay	23.7			X_C = 1.02			Intersection LOS			C		

TWO-WAY STOP CONTROL SUMMARY CFOREXEXA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	CHESTNUT FERRY/OLD RIVER ROAD
Jurisdiction	SCDOT
Analysis Year	2010

Project Description 2010 VOLUMES; EXISTING GEOMETRY

East/West Street: CHESTNUT FERRY | North/South Street: OLD RIVER ROAD

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	307	7	10	202	0
Peak-Hour Factor, PHF	0.25	0.88	0.58	0.83	0.79	0.25
Hourly Flow Rate, HFR (veh/h)	4	348	12	12	255	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	8	11	17	4	6	3
Peak-Hour Factor, PHF	0.50	0.92	0.61	0.50	0.50	0.38
Hourly Flow Rate, HFR (veh/h)	16	11	27	8	12	7
Percent Heavy Vehicles	0	2	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	4	12		54			27	
C (m) (veh/h)	1322	1210		486			430	
v/c	0.00	0.01		0.11			0.06	
95% queue length	0.01	0.03		0.37			0.20	
Control Delay (s/veh)	7.7	8.0		13.3			13.9	
LOS	A	A		B			B	
Approach Delay (s/veh)	--	--	13.3			13.9		
Approach LOS	--	--	B			B		

TWO-WAY STOP CONTROL SUMMARY CFOR35EXA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	CHESTNUT FERRY/OLD RIVER ROAD
Jurisdiction	SCDOT
Analysis Year	2035

Project Description 2035 VOLUMES; EXISTING GEOMETRY

East/West Street: CHESTNUT FERRY | North/South Street: OLD RIVER ROAD

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	445	10	14		1
Peak-Hour Factor, PHF	0.25	0.88	0.58	0.83	0.79	0.25
Hourly Flow Rate, HFR (veh/h)	4	505	17	16	367	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	12	16	25	6	9	4
Peak-Hour Factor, PHF	0.50	0.92	0.61	0.50	0.50	0.38
Hourly Flow Rate, HFR (veh/h)	24	17	40	12	18	10
Percent Heavy Vehicles	0	2	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	4	16		81			40	
C (m) (veh/h)	1195	1055		334			283	
v/c	0.00	0.02		0.24			0.14	
95% queue length	0.01	0.05		0.93			0.49	
Control Delay (s/veh)	8.0	8.5		19.2			19.8	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	19.2			19.8		
Approach LOS	--	--	C			C		

TWO-WAY STOP CONTROL SUMMARY

CFOR EXEXP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	CHESTNUT FERRY/OLD RIVER ROAD
Jurisdiction	SCDOT
Analysis Year	2010

Project Description: 2010 VOLUMES; EXISTING GEOMETRY

East/West Street: CHESTNUT FERRY | North/South Street: OLD RIVER ROAD

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	7	397	17	39	278	1
Peak-Hour Factor, PHF	0.58	0.88	0.85	0.75	0.84	0.25
Hourly Flow Rate, HFR (veh/h)	12	451	19	52	330	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	9	22	32	3	15	9
Peak-Hour Factor, PHF	0.56	0.50	0.67	0.75	0.62	0.75
Hourly Flow Rate, HFR (veh/h)	16	44	47	4	24	12
Percent Heavy Vehicles	0	2	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	12	52		107			40	
C (m) (veh/h)	1228	1102		324			293	
v/c	0.01	0.05		0.33			0.14	
95% queue length	0.03	0.15		1.41			0.47	
Control Delay (s/veh)	8.0	8.4		21.5			19.2	
LOS	A	A		C			C	
Approach Delay (s/veh)	--	--	21.5			19.2		
Approach LOS	--	--	C			C		

TWO-WAY STOP CONTROL SUMMARY CFORBJEXP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	CHESTNUT FERRY/OLD RIVER ROAD
Jurisdiction	SCDOT
Analysis Year	2035

Project Description 2035 VOLUMES; EXISTING GEOMETRY

East/West Street: CHESTNUT FERRY | North/South Street: OLD RIVER ROAD

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	10	576	25	57	403	1
Peak-Hour Factor, PHF	0.58	0.88	0.85	0.75	0.84	0.25
Hourly Flow Rate, HFR (veh/h)	17	654	29	76	479	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	13	32	46	4	22	13
Peak-Hour Factor, PHF	0.56	0.50	0.67	0.75	0.62	0.75
Hourly Flow Rate, HFR (veh/h)	23	64	68	5	35	17
Percent Heavy Vehicles	0	2	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	17	76		155			57	
C (m) (veh/h)	1082	919		172			146	
v/c	0.02	0.08		0.90			0.39	
95% queue length	0.05	0.27		6.64			1.67	
Control Delay (s/veh)	8.4	9.3		98.5			44.6	
LOS	A	A		F			E	
Approach Delay (s/veh)	--	--	98.5			44.6		
Approach LOS	--	--	F			E		

TWO-WAY STOP CONTROL SUMMARY CFOR35NRP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	CHESTNUT FERRY/OLD RIVER ROAD
Jurisdiction	SCDOT
Analysis Year	2035

Project Description 2035 VOLUMES; ADD NB RTL

East/West Street: CHESTNUT FERRY | North/South Street: OLD RIVER ROAD

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	10	576	25	57	403	1
Peak-Hour Factor, PHF	0.58	0.88	0.85	0.75	0.84	0.25
Hourly Flow Rate, HFR (veh/h)	17	654	29	76	479	4
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	13	32	46	4	22	13
Peak-Hour Factor, PHF	0.56	0.50	0.67	0.75	0.62	0.75
Hourly Flow Rate, HFR (veh/h)	23	64	68	5	35	17
Percent Heavy Vehicles	0	2	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	1	0	1	0
Configuration	LT		R		LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR	LT		R		LTR	
v (veh/h)	17	76	87		68		57	
C (m) (veh/h)	1082	919	115		460		146	
v/c	0.02	0.08	0.76		0.15		0.39	
95% queue length	0.05	0.27	4.22		0.51		1.67	
Control Delay (s/veh)	8.4	9.3	98.4		14.2		44.6	
LOS	A	A	F		B		E	
Approach Delay (s/veh)	--	--	61.4			44.6		
Approach LOS	--	--	F			E		

TWO-WAY STOP CONTROL SUMMARY CFEXEXA

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	AM PEAK HOUR		

Project Description 2010 VOLUMES AND GEOMETRY

East/West Street: CHESTNUT FERRY/YORK	North/South Street: EHRENCLOU
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		142	186	73	125	
Peak-Hour Factor, PHF	0.79	0.63	0.72	0.73	0.65	0.25
Hourly Flow Rate, HFR (veh/h)	0	225	258	99	192	0
Percent Heavy Vehicles	8	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	127	1	49			
Peak-Hour Factor, PHF	0.62	0.25	0.61	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	204	4	80	0	0	0
Percent Heavy Vehicles	3	0	12	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LTR				
v (veh/h)		99		288				
C (m) (veh/h)		1034		382				
v/c		0.10		0.75				
95% queue length		0.32		6.06				
Control Delay (s/veh)		8.8		38.2				
LOS		A		E				
Approach Delay (s/veh)	--	--	38.2					
Approach LOS	--	--	E					

TWO-WAY STOP CONTROL SUMMARY

CFE 35 EXA

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES AND GEOMETRY

East/West Street: CHESTNUT FERRY/YORK | North/South Street: EHRENCLOU

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		206	270	106	181	
Peak-Hour Factor, PHF	0.79	0.63	0.72	0.73	0.65	0.25
Hourly Flow Rate, HFR (veh/h)	0	326	374	145	278	0
Percent Heavy Vehicles	8	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	184	1	71			
Peak-Hour Factor, PHF	0.62	0.25	0.61	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	296	4	116	0	0	0
Percent Heavy Vehicles	3	0	12	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LTR				
v (veh/h)		145		416				
C (m) (veh/h)		856		232				
v/c		0.17		1.79				
95% queue length		0.61		28.48				
Control Delay (s/veh)		10.1		409.6				
LOS		B		F				
Approach Delay (s/veh)	--	--	409.6					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY CFE35NRA

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES; ADD NBRTL

East/West Street: CHESTNUT FERRY/YORK | North/South Street: EHRENCLOU

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		206	270	106	181	
Peak-Hour Factor, PHF	0.79	0.63	0.72	0.73	0.65	0.25
Hourly Flow Rate, HFR (veh/h)	0	326	374	145	278	0
Percent Heavy Vehicles	8	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	184	1	71			
Peak-Hour Factor, PHF	0.62	0.25	0.61	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	296	4	116	0	0	0
Percent Heavy Vehicles	3	0	12	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	LT		R			
v (veh/h)		145	300		116			
C (m) (veh/h)		856	190		542			
v/c		0.17	1.58		0.21			
95% queue length		0.61	19.51		0.80			
Control Delay (s/veh)		10.1	328.7		13.4			
LOS		B	F		B			
Approach Delay (s/veh)	--	--	240.8					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

CFEXEXP

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description: 2010 VOLUMES AND GEOMETRY

East/West Street: CHESTNUT FERRY/YORK | North/South Street: EHRENCLOU

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		167	237	55	153	
Peak-Hour Factor, PHF	0.79	0.87	0.87	0.72	0.81	0.25
Hourly Flow Rate, HFR (veh/h)	0	191	272	76	188	0
Percent Heavy Vehicles	8	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	204	1	38			
Peak-Hour Factor, PHF	0.88	0.25	0.79	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	231	4	48	0	0	0
Percent Heavy Vehicles	3	0	12	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LTR				
v (veh/h)		76		283				
C (m) (veh/h)		1053		420				
v/c		0.07		0.67				
95% queue length		0.23		4.83				
Control Delay (s/veh)		8.7		29.5				
LOS		A		D				
Approach Delay (s/veh)	--	--	29.5					
Approach LOS	--	--	D					

TWO-WAY STOP CONTROL SUMMARY

CF35 EXP

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	PM PEAK HOUR		

Project Description: 2035 VOLUMES AND GEOMETRY

East/West Street: CHESTNUT FERRY/YORK | North/South Street: EHRENCLOU

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		242	344	80	222	
Peak-Hour Factor, PHF	0.79	0.87	0.87	0.72	0.81	0.25
Hourly Flow Rate, HFR (veh/h)	0	278	395	111	274	0
Percent Heavy Vehicles	8	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	296	1	55			
Peak-Hour Factor, PHF	0.88	0.25	0.79	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	336	4	69	0	0	0
Percent Heavy Vehicles	3	0	12	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT		LTR				
v (veh/h)		111		409				
C (m) (veh/h)		877		268				
v/c		0.13		1.53				
95% queue length		0.43		24.01				
Control Delay (s/veh)		9.7		289.3				
LOS		A		F				
Approach Delay (s/veh)	--	--	289.3					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

CF E35 HRP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/4/2011
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	CF/YORK/EHRENCLOU
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES; ADD NB RTL

East/West Street: CHESTNUT FERRY/YORK

North/South Street: EHRENCLOU

Intersection Orientation: East-West

Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		242	344	80	222	
Peak-Hour Factor, PHF	0.79	0.87	0.87	0.72	0.81	0.25
Hourly Flow Rate, HFR (veh/h)	0	278	395	111	274	0
Percent Heavy Vehicles	8	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration			TR	LT		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	296	1	55			
Peak-Hour Factor, PHF	0.88	0.25	0.79	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	336	4	69	0	0	0
Percent Heavy Vehicles	3	0	12	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	LT		R			
v (veh/h)		111	340		69			
C (m) (veh/h)		877	242		569			
v/c		0.13	1.40		0.12			
95% queue length		0.43	18.97		0.41			
Control Delay (s/veh)		9.7	244.1		12.2			
LOS		A	F		B			
Approach Delay (s/veh)	--	--	204.9					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

CFE35RA

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES; REALIGN

East/West Street: YORK | North/South Street: CHESTNUT FERRY/EHRENCLOU

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		184	71	206	270	
Peak-Hour Factor, PHF	0.62	0.62	0.61	0.68	0.72	0.91
Hourly Flow Rate, HFR (veh/h)	0	296	116	302	374	0
Percent Heavy Vehicles	3	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				106	1	181
Peak-Hour Factor, PHF	0.79	0.63	0.72	0.73	0.25	0.65
Hourly Flow Rate, HFR (veh/h)	0	0	0	145	4	278
Percent Heavy Vehicles	8	0	6	11	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	1
Configuration				LT		R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LT		R			
v (veh/h)		302	149		278			
C (m) (veh/h)		1147	120		690			
v/c		0.26	1.24		0.40			
95% queue length		1.06	9.50		1.95			
Control Delay (s/veh)		9.3	229.8		13.7			
LOS		A	F		B			
Approach Delay (s/veh)	--	--	89.1					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

CF E3 SRP

General Information		Site Information	
Analyst	GGS	Intersection	CF/YORK/EHRENCLOU
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	PM PEAK HOUR		

Project Description: 2035 VOLUMES; REALIGN

East/West Street: YORK | North/South Street: CHESTNUT FERRY/EHRENCLOU

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		296	55	242	344	
Peak-Hour Factor, PHF	0.62	0.88	0.79	0.87	0.87	0.91
Hourly Flow Rate, HFR (veh/h)	0	336	69	278	395	0
Percent Heavy Vehicles	3	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				80	1	222
Peak-Hour Factor, PHF	0.79	0.63	0.72	0.72	0.25	0.81
Hourly Flow Rate, HFR (veh/h)	0	0	0	111	4	274
Percent Heavy Vehicles	8	0	6	11	0	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	1
Configuration				LT		R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LT		R			
v (veh/h)		278	115		274			
C (m) (veh/h)		1154	125		676			
v/c		0.24	0.92		0.41			
95% queue length		0.94	5.97		1.97			
Control Delay (s/veh)		9.1	126.5		13.9			
LOS		A	F		B			
Approach Delay (s/veh)	--	--	47.2					
Approach LOS	--	--	E					

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY EHRENCLOU/YORK
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035 CFES35EXPA
		Project ID	EXISTING ALIGNMENT - ASSUME WB LTL + NB RTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		1	0	1	1		1		1			
Lane group		TR		L	T		L		R			
Volume, V (vph)		206	270	106	181		184		71			
% Heavy vehicles, %HV			2	11	2		3		12			
Peak-hour factor, PHF		0.63	0.72	0.73	0.65		0.62		0.61			
Pretimed (P) or actuated (A)		A	A	A	A		A		A			
Start-up lost time, l_1		2.0		2.0	2.0		2.0		2.0			
Extension of effective green, e		2.0		2.0	2.0		2.0		2.0			
Arrival type, AT		3		3	3		3		3			
Unit extension, UE		3.0		3.0	3.0		3.0		3.0			
Filtering/metering, I		1.000		1.000	1.000		1.000		1.000			
Initial unmet demand, Q_b		0.0		0.0	0.0		0.0		0.0			
Ped / Bike / RTOR volumes	22	0	0	0	0			0	0	0	0	
Lane width		11.0		11.0	11.0		11.0		11.0			
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0		0		0			
Min. time for pedestrians, G_p		3.3			3.2						3.2	

Phasing	EW Perm	02	03	04	NB Only	06	07	08
Timing	G = 48.0	G =	G =	G =	G = 22.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 82.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		702		145	278		297		116			
Lane group capacity, c		968		303	1054		448		368			
v/c ratio, X		0.73		0.48	0.26		0.66		0.32			
Total green ratio, g/C		0.59		0.59	0.59		0.27		0.27			
Uniform delay, d_1		12.2		9.8	8.3		26.7		24.0			
Progression factor, PF		1.000		1.000	1.000		1.000		1.000			
I factor		1.000		1.000	1.000		1.000		1.000			
Delay calibration, k		0.29		0.11	0.11		0.24		0.11			
Incremental delay, d_2		2.7		1.2	0.1		3.7		0.5			
Initial queue delay, d_3		0.0		0.0	0.0		0.0		0.0			
Back of Queue		13.1		2.2	3.3		6.8		2.3			
Queue Storage Ratio												
Control delay		15.0		11.0	8.5		30.4		24.5			
Lane group LOS		B		B	A		C		C			
Approach delay	15.0			9.3			28.7					
Approach LOS	B			A			C					
Intersection delay	17.1			X_C = 0.71			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY / ELDRENCLOU / YORK
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	REALIGNMENT - ASSUME SB LTL + WB RTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1				1		1		1	0	1	1	
Lane group				L		R		TR		L	T	
Volume, V (vph)				106		181		184	71	206	270	
% Heavy vehicles, %HV				11		2		3	12	2	2	
Peak-hour factor, PHF				0.73		0.65		0.62	0.61	0.63	0.72	
Pretimed (P) or actuated (A)				A		A		A	A	A	A	
Start-up lost time, l_1				2.0		2.0		2.0		2.0	2.0	
Extension of effective green, e				2.0		2.0		2.0		2.0	2.0	
Arrival type, AT				3		3		3		3	3	
Unit extension, UE				3.0		3.0		3.0		3.0	3.0	
Filtering/metering, I				1.000		1.000		1.000		1.000	1.000	
Initial unmet demand, Q_b				0.0		0.0		0.0		0.0	0.0	
Ped / Bike / RTOR volumes	0	0		22	0	0	0	0	0	0	0	
Lane width				11.0		11.0		11.0		11.0	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B				0		0		0		0	0	
Min. time for pedestrians, G_p	3.2			3.3			3.2			3.2		

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 22.0	G =	G =	G =	G = 48.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 82.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v				145		278		413		327	375	
Lane group capacity, c				422		394		965		495	1054	
v/c ratio, X				0.34		0.71		0.43		0.66	0.36	
Total green ratio, g/C				0.27		0.27		0.59		0.59	0.59	
Uniform delay, d_1				24.2		27.1		9.4		11.5	8.9	
Progression factor, PF				1.000		1.000		1.000		1.000	1.000	
I factor				1.000		1.000		1.000		1.000	1.000	
Delay calibration, k				0.11		0.27		0.11		0.24	0.11	
Incremental delay, d_2				0.5		5.7		0.3		3.3	0.2	
Initial queue delay, d_3				0.0		0.0		0.0		0.0	0.0	
Back of Queue				2.9		6.6		5.7		5.8	4.8	
Queue Storage Ratio												
Control delay				24.7		32.8		9.7		14.8	9.1	
Lane group LOS				C		C		A		B	A	
Approach delay				30.0			9.7			11.7		
Approach LOS				C			A			B		
Intersection delay	16.2			X_C = 0.68			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY / ETHRIDGE CLOSE / YORK
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	EXISTING ALIGNMENT - ASSUME WB LTL + NB RTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		1	0	1	1		1		1			
Lane group		TR		L	T		L		R			
Volume, V (vph)		242	344	80	222		296		55			
% Heavy vehicles, %HV			2	11	2		3		12			
Peak-hour factor, PHF		0.87	0.87	0.72	0.81		0.88		0.79			
Pretimed (P) or actuated (A)		A	A	A	A		A		A			
Start-up lost time, l_1		2.0		2.0	2.0		2.0		2.0			
Extension of effective green, e		2.0		2.0	2.0		2.0		2.0			
Arrival type, AT		3		3	3		3		3			
Unit extension, UE		3.0		3.0	3.0		3.0		3.0			
Filtering/metering, I		1.000		1.000	1.000		1.000		1.000			
Initial unmet demand, Q_b		0.0		0.0	0.0		0.0		0.0			
Ped / Bike / RTOR volumes	22	0	0	0	0			0	0	0	0	
Lane width		11.0		11.0	11.0		11.0		11.0			
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0		0		0			
Min. time for pedestrians, G_p		3.3			3.2						3.2	

Phasing	EW Perm	02	03	04	NB Only	06	07	08
Timing	G = 48.0	G =	G =	G =	G = 22.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 82.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		673		111	274		336		70			
Lane group capacity, c		960		316	1054		448		368			
v/c ratio, X		0.70		0.35	0.26		0.75		0.19			
Total green ratio, g/C		0.59		0.59	0.59		0.27		0.27			
Uniform delay, d_1		12.0		8.9	8.3		27.5		23.1			
Progression factor, PF		1.000		1.000	1.000		1.000		1.000			
I factor		1.000		1.000	1.000		1.000		1.000			
Delay calibration, k		0.27		0.11	0.11		0.31		0.11			
Incremental delay, d_2		2.3		0.7	0.1		6.9		0.3			
Initial queue delay, d_3		0.0		0.0	0.0		0.0		0.0			
Back of Queue		12.2		1.5	3.3		8.1		1.3			
Queue Storage Ratio												
Control delay		14.3		9.6	8.4		34.4		23.4			
Lane group LOS		B		A	A		C		C			
Approach delay	14.3			8.8			32.5					
Approach LOS	B			A			C					
Intersection delay	17.9			X_C = 0.72			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY / EHRENCLOU / YOLO
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	P M PEAK PERIOD	Analysis Year	2035
		Project ID	REALIGNMENT - ASSUME SB LTL + WB RTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1				1		1		1	0	1	1	
Lane group				L		R		TR		L	T	
Volume, V (vph)				80		222		296	55	242	344	
% Heavy vehicles, %HV				11		2		3	12	2	2	
Peak-hour factor, PHF				0.72		0.81		0.88	0.79	0.87	0.87	
Pretimed (P) or actuated (A)				A		A		A	A	A	A	
Start-up lost time, l_1				2.0		2.0		2.0		2.0	2.0	
Extension of effective green, e				2.0		2.0		2.0		2.0	2.0	
Arrival type, AT				3		3		3		3	3	
Unit extension, UE				3.0		3.0		3.0		3.0	3.0	
Filtering/metering, I				1.000		1.000		1.000		1.000	1.000	
Initial unmet demand, Q_b				0.0		0.0		0.0		0.0	0.0	
Ped / Bike / RTOR volumes	2	0		1	0	0	0	0	0	0	0	
Lane width				11.0		11.0		11.0		11.0	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B				0		0		0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 22.0	G =	G =	G =	G = 48.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =

Duration of Analysis, T = | Cycle Length, C = 82.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v				111		274		406		278	395	
Lane group capacity, c				422		410		989		499	1054	
v/c ratio, X				0.26		0.67		0.41		0.56	0.37	
Total green ratio, g/C				0.27		0.27		0.59		0.59	0.59	
Uniform delay, d_1				23.6		26.7		9.3		10.5	9.0	
Progression factor, PF				1.000		1.000		1.000		1.000	1.000	
I factor				1.000		1.000		1.000		1.000	1.000	
Delay calibration, k				0.11		0.24		0.11		0.15	0.11	
Incremental delay, d_2				0.3		4.2		0.3		1.4	0.2	
Initial queue delay, d_3				0.0		0.0		0.0		0.0	0.0	
Back of Queue				2.1		6.3		5.5		4.4	5.2	
Queue Storage Ratio												
Control delay				24.0		30.9		9.6		11.9	9.3	
Lane group LOS				C		C		A		B	A	
Approach delay				28.9			9.6			10.3		
Approach LOS				C			A			B		
Intersection delay	15.0			X_C = 0.59			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY/EHRENCLOU/YORK
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	SCHOOL DISMISSAL	Analysis Year	2035
		Project ID	EXISTING ALIGNMENT - ASSUME WB LTL + NB RTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		1	0	1	1		1		1			
Lane group		TR		L	T		L		R			
Volume, V (vph)		280	341	123	344		232		107			
% Heavy vehicles, %HV			2	11	2		3		12			
Peak-hour factor, PHF		0.93	0.78	0.76	0.81		0.82		0.68			
Pretimed (P) or actuated (A)		A	A	A	A		A		A			
Start-up lost time, l_1		2.0		2.0	2.0		2.0		2.0			
Extension of effective green, e		2.0		2.0	2.0		2.0		2.0			
Arrival type, AT		3		3	3		3		3			
Unit extension, UE		3.0		3.0	3.0		3.0		3.0			
Filtering/metering, I		1.000		1.000	1.000		1.000		1.000			
Initial unmet demand, Q_b		0.0		0.0	0.0		0.0		0.0			
Ped / Bike / RTOR volumes	22	0	0	0	0		0	0	0	0	0	
Lane width		11.0		11.0	11.0		11.0		11.0			
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0		0		0			
Min. time for pedestrians, G_p		3.3			3.2			3.2			3.2	

Phasing	EW Perm	02	03	04	NB Only	06	07	08
Timing	G = 48.0	G =	G =	G =	G = 22.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 82.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		738		162	425		283		157			
Lane group capacity, c		959		288	1054		448		368			
v/c ratio, X		0.77		0.56	0.40		0.63		0.43			
Total green ratio, g/C		0.59		0.59	0.59		0.27		0.27			
Uniform delay, d_1		12.8		10.5	9.2		26.4		24.8			
Progression factor, PF		1.000		1.000	1.000		1.000		1.000			
I factor		1.000		1.000	1.000		1.000		1.000			
Delay calibration, k		0.32		0.16	0.11		0.21		0.11			
Incremental delay, d_2		3.9		2.5	0.3		2.9		0.8			
Initial queue delay, d_3		0.0		0.0	0.0		0.0		0.0			
Back of Queue		14.7		2.7	5.7		6.3		3.2			
Queue Storage Ratio												
Control delay		16.7		13.0	9.5		29.3		25.6			
Lane group LOS		B		B	A		C		C			
Approach delay	16.7			10.5			28.0					
Approach LOS	B			B			C					
Intersection delay	17.4			X_C = 0.73			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY / EARLEWOOD / YORK
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	SCHOOL DISMISSAL	Analysis Year	2035
		Project ID	REALIGNMENT - ASSUME SB LTL + WB RTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1				1		1		1	0	1	1	
Lane group				L		R		TR		L	T	
Volume, V (vph)				123		344		232	107	280	341	
% Heavy vehicles, %HV				11		2		3	12	2	2	
Peak-hour factor, PHF				0.76		0.81		0.82	0.68	0.96	0.78	
Pretimed (P) or actuated (A)				A		A		A	A	A	A	
Start-up lost time, l_1				2.0		2.0		2.0		2.0	2.0	
Extension of effective green, e				2.0		2.0		2.0		2.0	2.0	
Arrival type, AT				3		3		3		3	3	
Unit extension, UE				3.0		3.0		3.0		3.0	3.0	
Filtering/metering, I				1.000		1.000		1.000		1.000	1.000	
Initial unmet demand, Q_b				0.0		0.0		0.0		0.0	0.0	
Ped / Bike / RTOR volumes	2	0		1	0	0	0	0	0	0	0	
Lane width				11.0		11.0		11.0		11.0	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B				0		0		0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 22.0	G =	G =	G =	G = 48.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 82.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v				162		425		440		292	437	
Lane group capacity, c				422		410		949		476	1054	
v/c ratio, X				0.38		1.04		0.46		0.61	0.41	
Total green ratio, g/C				0.27		0.27		0.59		0.59	0.59	
Uniform delay, d_1				24.5		30.0		9.7		11.0	9.3	
Progression factor, PF				1.000		1.000		1.000		1.000	1.000	
I factor				1.000		1.000		1.000		1.000	1.000	
Delay calibration, k				0.11		0.50		0.11		0.20	0.11	
Incremental delay, d_2				0.6		54.2		0.4		2.4	0.3	
Initial queue delay, d_3				0.0		0.0		0.0		0.0	0.0	
Back of Queue				3.3		15.2		6.2		4.9	5.9	
Queue Storage Ratio												
Control delay				25.1		84.2		10.0		13.3	9.6	
Lane group LOS				C		F		B		B	A	
Approach delay				67.9			10.0			11.1		
Approach LOS				E			B			B		
Intersection delay	29.8			X_C = 0.75			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	CHESTNUT FERRY / EVERGLOW / YORK
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	SCHOOL DISMISSAL	Analysis Year	2035
		Project ID	REALIGNMENT - ASSUME SB LTL + WB RTL - CHANGE TIME

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1				1		1		1	0	1	1	
Lane group				L		R		TR		L	T	
Volume, V (vph)				123		344		232	107	280	341	
% Heavy vehicles, %HV				11		2		3	12	2	2	
Peak-hour factor, PHF				0.76		0.81		0.82	0.68	0.96	0.78	
Pretimed (P) or actuated (A)				A		A		A	A	A	A	
Start-up lost time, l_1				2.0		2.0		2.0		2.0	2.0	
Extension of effective green, e				2.0		2.0		2.0		2.0	2.0	
Arrival type, AT				3		3		3		3	3	
Unit extension, UE				3.0		3.0		3.0		3.0	3.0	
Filtering/metering, I				1.000		1.000		1.000		1.000	1.000	
Initial unmet demand, Q_b				0.0		0.0		0.0		0.0	0.0	
Ped / Bike / RTOR volumes	2	0		1	0	0	0	0	0	0	0	
Lane width				11.0		11.0		11.0		11.0	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	3	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B				0		0		0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	WB Only	02	03	04	NS Perm	06	07	08
Timing	G = 28.0	G =	G =	G =	G = 42.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 82.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v				162		425		440		292	437	
Lane group capacity, c				537		522		830		386	922	
v/c ratio, X				0.30		0.81		0.53		0.76	0.47	
Total green ratio, g/C				0.34		0.34		0.51		0.51	0.51	
Uniform delay, d_1				19.8		24.6		13.4		15.9	12.9	
Progression factor, PF				1.000		1.000		1.000		1.000	1.000	
I factor				1.000		1.000		1.000		1.000	1.000	
Delay calibration, k				0.11		0.36		0.13		0.31	0.11	
Incremental delay, d_2				0.3		9.6		0.7		8.3	0.4	
Initial queue delay, d_3				0.0		0.0		0.0		0.0	0.0	
Back of Queue				2.9		10.5		7.4		6.3	7.0	
Queue Storage Ratio												
Control delay				20.1		34.2		14.0		24.3	13.3	
Lane group LOS				C		C		B		C	B	
Approach delay				30.4			14.0			17.7		
Approach LOS				C			B			B		
Intersection delay	21.0			X_C = 0.78			Intersection LOS			C		

TWO-WAY STOP CONTROL SUMMARY SEREXEXA

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	AM PEAK HOUR		

Project Description: 2010 VOLUMES AND GEOMETRY

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	199	399			530	3
Peak-Hour Factor, PHF	0.74	0.86	0.25	0.25	0.86	0.75
Hourly Flow Rate, HFR (veh/h)	268	463	0	0	616	4
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	1	165			
Peak-Hour Factor, PHF	0.50	0.25	0.92	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	8	4	179	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LTR	
v (veh/h)	268						191	
C (m) (veh/h)	941						498	
v/c	0.28						0.38	
95% queue length	1.18						1.78	
Control Delay (s/veh)	10.3						16.7	
LOS	B						C	
Approach Delay (s/veh)	--	--	16.7					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

5ER35EXA

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES AND GEOMETRY

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	289	579			769	4
Peak-Hour Factor, PHF	0.74	0.86	0.25	0.25	0.86	0.75
Hourly Flow Rate, HFR (veh/h)	390	673	0	0	894	5
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	6	1	239			
Peak-Hour Factor, PHF	0.50	0.25	0.92	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	12	4	259	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LTR	
v (veh/h)	390						275	
C (m) (veh/h)	737						236	
v/c	0.53						1.17	
95% queue length	3.14						12.88	
Control Delay (s/veh)	15.2						154.3	
LOS	C						F	
Approach Delay (s/veh)	--	--				154.3		
Approach LOS	--	--				F		

TWO-WAY STOP CONTROL SUMMARY

GEE SER35ERA

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES; ADD EB RTL

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	289	579			769	4
Peak-Hour Factor, PHF	0.74	0.86	0.25	0.25	0.86	0.75
Hourly Flow Rate, HFR (veh/h)	390	673	0	0	894	5
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	6	1	239			
Peak-Hour Factor, PHF	0.50	0.25	0.92	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	12	4	259	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					LT		R
v (veh/h)	390					16		259
C (m) (veh/h)	737					22		602
v/c	0.53					0.73		0.43
95% queue length	3.14					2.10		2.16
Control Delay (s/veh)	15.2					346.7		15.4
LOS	C					F		C
Approach Delay (s/veh)	--	--				34.7		
Approach LOS	--	--				D		

TWO-WAY STOP CONTROL SUMMARY

5 EREXEXP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description: 2010 VOLUMES AND GEOMETRY

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	188	525			460	3
Peak-Hour Factor, PHF	0.82	0.85	0.25	0.25	0.89	0.38
Hourly Flow Rate, HFR (veh/h)	229	617	0	0	516	7
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	5	1	223			
Peak-Hour Factor, PHF	0.25	0.25	0.87	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	20	4	256	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LTR	
v (veh/h)	229						280	
C (m) (veh/h)	1026						518	
v/c	0.22						0.54	
95% queue length	0.85						3.19	
Control Delay (s/veh)	9.5						19.8	
LOS	A						C	
Approach Delay (s/veh)	--	--				19.8		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY 5ER35EXP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	PM PEAK HOUR		

Project Description: 2035 VOLUMES AND GEOMETRY

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	273	761			667	4
Peak-Hour Factor, PHF	0.82	0.85	0.25	0.25	0.89	0.38
Hourly Flow Rate, HFR (veh/h)	332	895	0	0	749	10
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	7	1	323			
Peak-Hour Factor, PHF	0.25	0.25	0.87	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	28	4	371	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LTR	
v (veh/h)	332						403	
C (m) (veh/h)	835						281	
v/c	0.40						1.43	
95% queue length	1.92						22.09	
Control Delay (s/veh)	12.1						249.0	
LOS	B						F	
Approach Delay (s/veh)	--	--				249.0		
Approach LOS	--	--				F		

TWO-WAY STOP CONTROL SUMMARY

5ER35ERP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	PM PEAK HOUR		

Project Description: 2035 VOLUMES; ADD EB RTL

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	273	761			667	4
Peak-Hour Factor, PHF	0.82	0.85	0.25	0.25	0.89	0.38
Hourly Flow Rate, HFR (veh/h)	332	895	0	0	749	10
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	7	1	323			
Peak-Hour Factor, PHF	0.25	0.25	0.87	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	28	4	371	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L					LT		R
v (veh/h)	332					32		371
C (m) (veh/h)	835					37		662
v/c	0.40					0.86		0.56
95% queue length	1.92					3.17		3.49
Control Delay (s/veh)	12.1					268.8		17.1
LOS	B					F		C
Approach Delay (s/veh)	--	--				37.1		
Approach LOS	--	--				E		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 / ENTRANCE
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0				1	2			2	0
Lane group		LTR					L	T			TR	
Volume, V (vph)	6	1	239				289	579			769	4
% Heavy vehicles, %HV	0		3				4	3			2	0
Peak-hour factor, PHF	0.50	0.25	0.92				0.74	0.86			0.86	0.75
Pretimed (P) or actuated (A)	A	A	A				A	A			A	A
Start-up lost time, l_1		2.0					2.0	2.0			2.0	
Extension of effective green, e		2.0					2.0	2.0			2.0	
Arrival type, AT		3					3	3			3	
Unit extension, UE		3.0					3.0	3.0			3.0	
Filtering/metering, I		1.000					1.000	1.000			1.000	
Initial unmet demand, Q_b		0.0					0.0	0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0		0	0		1	0	0
Lane width		12.0					13.0	12.5			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0					0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EB Only	02	03	04	NB Only	NS Perm	07	08
Timing	G = 21.0	G =	G =	G =	G = 13.0	G = 38.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 90.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		276					391	673			899	
Lane group capacity, c		375					429	2262			1496	
v/c ratio, X		0.74					0.91	0.30			0.60	
Total green ratio, g/C		0.23					0.63	0.63			0.42	
Uniform delay, d_1		31.9					15.3	7.5			20.1	
Progression factor, PF		1.000					1.000	1.000			1.000	
I factor		1.000					1.000	1.000			1.000	
Delay calibration, k		0.29					0.43	0.11			0.19	
Incremental delay, d_2		7.4					23.4	0.1			0.7	
Initial queue delay, d_3		0.0					0.0	0.0			0.0	
Back of Queue		7.4					6.8	4.3			10.0	
Queue Storage Ratio												
Control delay		39.3					38.8	7.5			20.8	
Lane group LOS		D					D	A			C	
Approach delay	39.3						19.0			20.8		
Approach LOS	D						B			C		
Intersection delay	22.2			X_C = 0.80			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	SLI / E MCLEAN CLOU
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; ADD EB RTL

SES3TERA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1				1	2			2	0
Lane group		LT	R				L	T			TR	
Volume, V (vph)	6	1	239				289	579			769	4
% Heavy vehicles, %HV	0		3				4	3			2	0
Peak-hour factor, PHF	0.50	0.25	0.92				0.74	0.86			0.86	0.75
Pretimed (P) or actuated (A)	A	A	A				A	A			A	A
Start-up lost time, l_1		2.0	2.0				2.0	2.0			2.0	
Extension of effective green, e		2.0	2.0				2.0	2.0			2.0	
Arrival type, AT		3	3				3	3			3	
Unit extension, UE		3.0	3.0				3.0	3.0			3.0	
Filtering/metering, I		1.000	1.000				1.000	1.000			1.000	
Initial unmet demand, Q_b		0.0	0.0				0.0	0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0		0	0		1	0	0
Lane width		12.0	12.0				13.0	12.5			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0				0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EB Only	02	03	04	NB Only	NS Perm	07	08
Timing	G = 20.0	G =	G =	G =	G = 13.0	G = 39.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 90.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		16	260				391	673			899	
Lane group capacity, c		407	679				438	2301			1536	
v/c ratio, X		0.04	0.38				0.89	0.29			0.59	
Total green ratio, g/C		0.22	0.43				0.64	0.64			0.43	
Uniform delay, d_1		27.5	17.3				14.1	7.0			19.4	
Progression factor, PF		1.000	1.000				1.000	1.000			1.000	
I factor		1.000	1.000				1.000	1.000			1.000	
Delay calibration, k		0.11	0.11				0.42	0.11			0.18	
Incremental delay, d_2		0.0	0.4				20.1	0.1			0.6	
Initial queue delay, d_3		0.0	0.0				0.0	0.0			0.0	
Back of Queue		0.3	4.8				6.5	4.2			9.8	
Queue Storage Ratio												
Control delay		27.5	17.7				34.2	7.1			19.9	
Lane group LOS		C	B				C	A			B	
Approach delay	18.3						17.1			19.9		
Approach LOS	B						B			B		
Intersection delay	18.4			X_C = 0.57			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 / EHRENCLOU
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT 5ES35 EXP
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0				1	2			2	0
Lane group		LTR					L	T			TR	
Volume, V (vph)	7	1	323				273	761			667	4
% Heavy vehicles, %HV	0		3				4	3			2	0
Peak-hour factor, PHF	0.25	0.25	0.87				0.82	0.85			0.89	0.38
Pretimed (P) or actuated (A)	A	A	A				A	A			A	A
Start-up lost time, l_1		2.0					2.0	2.0			2.0	
Extension of effective green, e		2.0					2.0	2.0			2.0	
Arrival type, AT		3					3	3			3	
Unit extension, UE		3.0					3.0	3.0			3.0	
Filtering/metering, I		1.000					1.000	1.000			1.000	
Initial unmet demand, Q_b		0.0					0.0	0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0		0	0		1	0	0
Lane width		12.0					13.0	12.5			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0					0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EB Only	02	03	04	NB Only	NS Perm	07	08
Timing	G = 27.0	G =	G =	G =	G = 13.0	G = 32.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 90.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		403					333	895			760	
Lane group capacity, c		484					423	2024			1259	
v/c ratio, X		0.83					0.79	0.44			0.60	
Total green ratio, g/C		0.30					0.57	0.57			0.36	
Uniform delay, d_1		29.4					13.3	11.3			23.8	
Progression factor, PF		1.000					1.000	1.000			1.000	
I factor		1.000					1.000	1.000			1.000	
Delay calibration, k		0.37					0.33	0.11			0.19	
Incremental delay, d_2		11.8					9.6	0.2			0.8	
Initial queue delay, d_3		0.0					0.0	0.0			0.0	
Back of Queue		11.3					5.4	7.4			9.0	
Queue Storage Ratio												
Control delay		41.2					22.9	11.4			24.6	
Lane group LOS		D					C	B			C	
Approach delay	41.2						14.5			24.6		
Approach LOS	D						B			C		
Intersection delay	22.2			X_C = 0.76			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 | EARLECLOU
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT 5ES35ERP
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; ADD EBRTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1				1	2			2	0
Lane group		LT	R				L	T			TR	
Volume, V (vph)	7	1	323				273	761			667	4
% Heavy vehicles, %HV	0		3				4	3			2	0
Peak-hour factor, PHF	0.25	0.25	0.87				0.82	0.85			0.89	0.38
Pretimed (P) or actuated (A)	A	A	A				A	A			A	A
Start-up lost time, l_1		2.0	2.0				2.0	2.0			2.0	
Extension of effective green, e		2.0	2.0				2.0	2.0			2.0	
Arrival type, AT		3	3				3	3			3	
Unit extension, UE		3.0	3.0				3.0	3.0			3.0	
Filtering/metering, I		1.000	1.000				1.000	1.000			1.000	
Initial unmet demand, Q_b		0.0	0.0				0.0	0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0		0	0		1	0	0
Lane width		12.0	12.0				13.0	12.5			12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0				0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EB Only	02	03	04	NB Only	NS Perm	07	08
Timing	G = 21.0	G =	G =	G =	G = 13.0	G = 38.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 90.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		32	371				333	895			760	
Lane group capacity, c		425	696				482	2262			1495	
v/c ratio, X		0.08	0.53				0.69	0.40			0.51	
Total green ratio, g/C		0.23	0.44				0.63	0.63			0.42	
Uniform delay, d_1		26.9	18.2				9.8	8.1			19.1	
Progression factor, PF		1.000	1.000				1.000	1.000			1.000	
I factor		1.000	1.000				1.000	1.000			1.000	
Delay calibration, k		0.11	0.14				0.26	0.11			0.12	
Incremental delay, d_2		0.1	0.8				4.2	0.1			0.3	
Initial queue delay, d_3		0.0	0.0				0.0	0.0			0.0	
Back of Queue		0.7	7.4				4.3	6.2			7.9	
Queue Storage Ratio												
Control delay		27.0	19.0				14.0	8.2			19.4	
Lane group LOS		C	B				B	A			B	
Approach delay	19.6						9.8			19.4		
Approach LOS	B						A			B		
Intersection delay	14.5			X_C = 0.52			Intersection LOS			B		

TWO-WAY STOP CONTROL SUMMARY 5BQEXEXA

General Information		Site Information	
Analyst	GGS	Intersection	US 521/BOYKIN ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	AM PEAK HOUR		

Project Description: 2010 VOLUMES AND GEOMETRY

East/West Street: BOYKIN ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	11	107	1	1	249	266
Peak-Hour Factor, PHF	0.69	0.81	0.25	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	15	132	4	4	292	292
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	98	2	3	2	7	1
Peak-Hour Factor, PHF	0.79	0.50	0.75	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	124	4	4	4	12	4
Percent Heavy Vehicles	8	0	6	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	15	4		20			132	
C (m) (veh/h)	999	1461		395			378	
v/c	0.02	0.00		0.05			0.35	
95% queue length	0.05	0.01		0.16			1.53	
Control Delay (s/veh)	8.7	7.5		14.6			19.5	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--	14.6			19.5		
Approach LOS	--	--	B			C		

TWO-WAY STOP CONTROL SUMMARY

5BY35EXA

General Information		Site Information	
Analyst	GGS	Intersection	US 521/BOYKIN ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES AND EXISTING GEOMETRY

East/West Street: BOYKIN ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	16	155	1	1	361	386
Peak-Hour Factor, PHF	0.69	0.81	0.25	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	23	191	4	4	424	424
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	142	3	4	3	10	1
Peak-Hour Factor, PHF	0.79	0.50	0.75	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	179	6	5	6	17	4
Percent Heavy Vehicles	8	0	6	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	23	4		27			190	
C (m) (veh/h)	797	1390		244			235	
v/c	0.03	0.00		0.11			0.81	
95% queue length	0.09	0.01		0.37			6.08	
Control Delay (s/veh)	9.7	7.6		21.6			63.4	
LOS	A	A		C			F	
Approach Delay (s/veh)	--	--	21.6			63.4		
Approach LOS	--	--	C			F		

TWO-WAY STOP CONTROL SUMMARY 5BYEXEXP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/BOYKIN ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description 2010 VOLUMES AND GEOMETRY

East/West Street: BOYKIN ROAD	North/South Street: US 521
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	19	263	8	1	169	131
Peak-Hour Factor, PHF	0.95	0.91	0.67	0.25	0.94	0.84
Hourly Flow Rate, HFR (veh/h)	20	289	11	4	179	155
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	254	6	13	3	5	6
Peak-Hour Factor, PHF	0.93	0.75	0.65	0.38	0.62	0.30
Hourly Flow Rate, HFR (veh/h)	273	8	20	7	8	19
Percent Heavy Vehicles	8	0	6	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	20	4		34			301	
C (m) (veh/h)	1235	1273		521			386	
v/c	0.02	0.00		0.07			0.78	
95% queue length	0.05	0.01		0.21			6.57	
Control Delay (s/veh)	8.0	7.8		12.4			40.5	
LOS	A	A		B			E	
Approach Delay (s/veh)	--	--	12.4			40.5		
Approach LOS	--	--	B			E		

TWO-WAY STOP CONTROL SUMMARY 5BY35EXP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/BOYKIN ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	PM PEAK HOUR		

Project Description 2035 VOLUMES AND GEOMETRY

East/West Street: BOYKIN ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	28	381	12	1	245	190
Peak-Hour Factor, PHF	0.95	0.91	0.67	0.25	0.94	0.84
Hourly Flow Rate, HFR (veh/h)	29	418	17	4	260	226
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	368	9	19	4	7	9
Peak-Hour Factor, PHF	0.93	0.75	0.65	0.38	0.62	0.30
Hourly Flow Rate, HFR (veh/h)	395	12	29	10	11	29
Percent Heavy Vehicles	8	0	6	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	29	4		50			436	
C (m) (veh/h)	1085	1135		376			243	
v/c	0.03	0.00		0.13			1.79	
95% queue length	0.08	0.01		0.46			29.64	
Control Delay (s/veh)	8.4	8.2		16.0			408.0	
LOS	A	A		C			F	
Approach Delay (s/veh)	--	--	16.0			408.0		
Approach LOS	--	--	C			F		

TWO-WAY STOP CONTROL SUMMARY

5BY35RP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/BOYKIN ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2035
Analysis Time Period	PM PEAK HOUR		

Project Description: 2035 VOLUMES; ADD SB RTL

East/West Street: BOYKIN ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	28	381	12	1	245	190
Peak-Hour Factor, PHF	0.95	0.91	0.67	0.25	0.94	0.84
Hourly Flow Rate, HFR (veh/h)	29	418	17	4	260	226
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	1
Configuration	LTR			LT		R
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	368	9	19	4	7	9
Peak-Hour Factor, PHF	0.93	0.75	0.65	0.38	0.62	0.30
Hourly Flow Rate, HFR (veh/h)	395	12	29	10	11	29
Percent Heavy Vehicles	8	0	6	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LT		LTR			LTR	
v (veh/h)	29	4		50			436	
C (m) (veh/h)	1085	1135		377			289	
v/c	0.03	0.00		0.13			1.51	
95% queue length	0.08	0.01		0.45			24.93	
Control Delay (s/veh)	8.4	8.2		16.0			278.7	
LOS	A	A		C			F	
Approach Delay (s/veh)	--	--	16.0			278.7		
Approach LOS	--	--	C			F		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 / BOYKIN
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY 5BOSEXEXA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	1	0	0	1	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	98	2	3	2	7	1	11	107	1	1	249	266
% Heavy vehicles, %HV	8		6	0	0	0	0	2	0	0	2	8
Peak-hour factor, PHF	0.79	0.50	0.75	0.50	0.58	0.25	0.69	0.81	0.25	0.25	0.85	0.91
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		3			3			3			3	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.5			12.0			11.5			12.5	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 33.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 65.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		132			20			152			589	
Lane group capacity, c		372			542			865			871	
v/c ratio, X		0.35			0.04			0.18			0.68	
Total green ratio, g/C		0.31			0.31			0.51			0.51	
Uniform delay, d_1		17.5			15.8			8.6			12.0	
Progression factor, PF		1.000			1.000			1.000			1.000	
I factor		1.000			1.000			1.000			1.000	
Delay calibration, k		0.11			0.11			0.11			0.25	
Incremental delay, d_2		0.6			0.0			0.1			2.1	
Initial queue delay, d_3		0.0			0.0			0.0			0.0	
Back of Queue		2.0			0.3			1.6			9.0	
Queue Storage Ratio												
Control delay		18.1			15.8			8.7			14.1	
Lane group LOS		B			B			A			B	
Approach delay	18.1			15.8			8.7			14.1		
Approach LOS	B			B			A			B		
Intersection delay	13.8			X_C = 0.56			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 | BOYKIN
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

5BOS35EXA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	1	0	0	1	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	142	3	4	3	10	1	16	155	1	1	361	386
% Heavy vehicles, %HV	8		6	0	0	0	0	2	0	0	2	8
Peak-hour factor, PHF	0.79	0.50	0.75	0.50	0.58	0.25	0.69	0.81	0.25	0.25	0.85	0.91
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		3			3			3			3	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.5			12.0			11.5			12.5	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 38.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 70.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		191			27			218			853	
Lane group capacity, c		343			497			888			931	
v/c ratio, X		0.56			0.05			0.25			0.92	
Total green ratio, g/C		0.29			0.29			0.54			0.54	
Uniform delay, d_1		21.2			18.1			8.4			14.6	
Progression factor, PF		1.000			1.000			1.000			1.000	
I factor		1.000			1.000			1.000			1.000	
Delay calibration, k		0.15			0.11			0.11			0.43	
Incremental delay, d_2		2.0			0.0			0.1			13.5	
Initial queue delay, d_3		0.0			0.0			0.0			0.0	
Back of Queue		3.5			0.4			2.4			19.4	
Queue Storage Ratio												
Control delay		23.3			18.2			8.6			28.1	
Lane group LOS		C			B			A			C	
Approach delay	23.3			18.2			8.6			28.1		
Approach LOS	C			B			A			C		
Intersection delay	23.9			X_C = 0.79			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 | BOYKIN
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; ADD SB RTL

5BO535SRA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	1	0	0	1	1
Lane group		LTR			LTR			LTR			LT	R
Volume, V (vph)	142	3	4	3	10	1	16	155	1	1	361	386
% Heavy vehicles, %HV	8		6	0	0	0	0	2	0	0	2	8
Peak-hour factor, PHF	0.79	0.50	0.75	0.50	0.58	0.25	0.69	0.81	0.25	0.25	0.85	0.91
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0			2.0			2.0	2.0
Extension of effective green, e		2.0			2.0			2.0			2.0	2.0
Arrival type, AT		3			3			3			3	3
Unit extension, UE		3.0			3.0			3.0			3.0	3.0
Filtering/metering, I		1.000			1.000			1.000			1.000	1.000
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	0.0
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.5			12.0			11.5			12.5	12.0
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	0
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 33.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 65.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		191			27			218			429	424
Lane group capacity, c		369			536			874			960	759
v/c ratio, X		0.52			0.05			0.25			0.45	0.56
Total green ratio, g/C		0.31			0.31			0.51			0.51	0.51
Uniform delay, d_1		18.5			15.8			9.0			10.2	11.0
Progression factor, PF		1.000			1.000			1.000			1.000	1.000
I factor		1.000			1.000			1.000			1.000	1.000
Delay calibration, k		0.12			0.11			0.11			0.11	0.16
Incremental delay, d_2		1.3			0.0			0.2			0.3	0.9
Initial queue delay, d_3		0.0			0.0			0.0			0.0	0.0
Back of Queue		3.2			0.4			2.4			5.4	5.9
Queue Storage Ratio												
Control delay		19.8			15.9			9.2			10.5	11.9
Lane group LOS		B			B			A			B	B
Approach delay	19.8			15.9			9.2			11.2		
Approach LOS	B			B			A			B		
Intersection delay	12.2			X_C = 0.54			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 / BOYKIN
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT 5BOSEXEXP
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	1	0	0	1	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	254	6	13	3	5	6	19	263	8	1	169	131
% Heavy vehicles, %HV	8		6	0	0	0	0	2	0	0	2	8
Peak-hour factor, PHF	0.93	0.75	0.65	0.38	0.62	0.30	0.95	0.91	0.67	0.25	0.94	0.84
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		3			3			3			3	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.5			12.0			11.5			12.5	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 33.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 65.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		301			36			321			340	
Lane group capacity, c		368			494			899			875	
v/c ratio, X		0.82			0.07			0.36			0.39	
Total green ratio, g/C		0.31			0.31			0.51			0.51	
Uniform delay, d_1		20.8			15.9			9.6			9.8	
Progression factor, PF		1.000			1.000			1.000			1.000	
I factor		1.000			1.000			1.000			1.000	
Delay calibration, k		0.36			0.11			0.11			0.11	
Incremental delay, d_2		13.5			0.1			0.2			0.3	
Initial queue delay, d_3		0.0			0.0			0.0			0.0	
Back of Queue		6.2			0.5			3.8			4.1	
Queue Storage Ratio												
Control delay		34.3			16.0			9.9			10.1	
Lane group LOS		C			B			A			B	
Approach delay	34.3			16.0			9.9			10.1		
Approach LOS	C			B			A			B		
Intersection delay	17.5			X_C = 0.55			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 | BOYKIN
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT 5B0535EXP
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	1	0	0	1	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	368	9	19	4	7	9	28	381	12	1	245	190
% Heavy vehicles, %HV	8		6	0	0	0	0	2	0	0	2	8
Peak-hour factor, PHF	0.93	0.75	0.65	0.38	0.62	0.30	0.95	0.91	0.67	0.25	0.94	0.84
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		3			3			3			3	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.5			12.0			11.5			12.5	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	
Min. time for pedestrians, G_p		3.2			3.2			3.2			3.2	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 33.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 75.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		437			52			466			491	
Lane group capacity, c		518			700			696			689	
v/c ratio, X		0.84			0.07			0.67			0.71	
Total green ratio, g/C		0.44			0.44			0.40			0.40	
Uniform delay, d_1		18.7			12.2			18.4			18.9	
Progression factor, PF		1.000			1.000			1.000			1.000	
I factor		1.000			1.000			1.000			1.000	
Delay calibration, k		0.38			0.11			0.24			0.28	
Incremental delay, d_2		12.1			0.0			2.5			3.5	
Initial queue delay, d_3		0.0			0.0			0.0			0.0	
Back of Queue		10.0			0.7			8.9			9.8	
Queue Storage Ratio												
Control delay		30.8			12.2			20.9			22.4	
Lane group LOS		C			B			C			C	
Approach delay	30.8			12.2			20.9			22.4		
Approach LOS	C			B			C			C		
Intersection delay	24.1			X_C = 0.78			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	521 | BOYKIN
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT SBOS35SRP
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; ADD SBRTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	0	0	1	0	0	1	0	0	1	1
Lane group		LTR			LTR			LTR			LT	R
Volume, V (vph)	368	9	19	4	7	9	28	381	12	1	245	190
% Heavy vehicles, %HV	8		6	0	0	0	0	2	0	0	2	8
Peak-hour factor, PHF	0.93	0.75	0.65	0.38	0.62	0.30	0.95	0.91	0.67	0.25	0.94	0.84
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0			2.0			2.0			2.0	2.0
Extension of effective green, e		2.0			2.0			2.0			2.0	2.0
Arrival type, AT		3			3			3			3	3
Unit extension, UE		3.0			3.0			3.0			3.0	3.0
Filtering/metering, I		1.000			1.000			1.000			1.000	1.000
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	0.0
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.5			12.0			11.5			12.5	12.0
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0			0			0			0	0
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 35.0	G =	G =	G =	G = 28.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 75.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		437			52			466			265	226
Lane group capacity, c		549			743			659			702	558
v/c ratio, X		0.80			0.07			0.71			0.38	0.41
Total green ratio, g/C		0.47			0.47			0.37			0.37	0.37
Uniform delay, d_1		17.0			11.0			20.0			17.1	17.4
Progression factor, PF		1.000			1.000			1.000			1.000	1.000
I factor		1.000			1.000			1.000			1.000	1.000
Delay calibration, k		0.34			0.11			0.27			0.11	0.11
Incremental delay, d_2		8.0			0.0			3.5			0.3	0.5
Initial queue delay, d_3		0.0			0.0			0.0			0.0	0.0
Back of Queue		9.2			0.6			9.4			4.3	3.8
Queue Storage Ratio												
Control delay		25.0			11.1			23.5			17.5	17.8
Lane group LOS		C			B			C			B	B
Approach delay	25.0			11.1			23.5			17.6		
Approach LOS	C			B			C			B		
Intersection delay	21.5			X_C = 0.76			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN / CIBERT HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY BLHEXEXA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	25	105	35	2	247	1	42	58	1	3	172	87
% Heavy vehicles, %HV	1	5	2	0	6	6	1	0	0	0	0	0
Peak-hour factor, PHF	0.78	0.85	0.67	0.50	0.95	0.25	0.75	0.72	0.25	0.38	0.86	0.87
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes		0	0	0	0	0	0	0	0	0	0	0
Lane width	12.0	13.0		12.0	11.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p				3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 14.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =					Cycle Length, C = 42.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	32	176		4	264		56	85		8	300	
Lane group capacity, c	374	601		409	576		414	719		508	688	
v/c ratio, X	0.09	0.29		0.01	0.46		0.14	0.12		0.02	0.44	
Total green ratio, g/C	0.33	0.33		0.33	0.33		0.38	0.38		0.38	0.38	
Uniform delay, d_1	9.6	10.3		9.4	11.0		8.5	8.4		8.1	9.7	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.11		0.11	0.11		0.11	0.11		0.11	0.11	
Incremental delay, d_2	0.1	0.3		0.0	0.6		0.1	0.1		0.0	0.4	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	0.3	1.6		0.0	2.7		0.5	0.7		0.1	2.9	
Queue Storage Ratio												
Control delay	9.7	10.6		9.4	11.6		8.6	8.5		8.1	10.1	
Lane group LOS	A	B		A	B		A	A		A	B	
Approach delay	10.5			11.6			8.6			10.0		
Approach LOS	B			B			A			B		
Intersection delay	10.4			X_C = 0.45			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN/LIBERTY HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	36	152	51	3	358	1	61	84	1	4	249	126
% Heavy vehicles, %HV	1	5	2	0	6	6	1	0	0	0	0	0
Peak-hour factor, PHF	0.78	0.85	0.67	0.50	0.95	0.25	0.75	0.72	0.25	0.38	0.86	0.87
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes		0	0	0	0	0	0	0	0	0	0	0
Lane width	12.0	13.0		12.0	11.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p				3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 14.0	G =	G =	G =	G = 16.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 42.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	46	255		6	381		81	121		11	435	
Lane group capacity, c	300	601		381	577		313	720		492	688	
v/c ratio, X	0.15	0.42		0.02	0.66		0.26	0.17		0.02	0.63	
Total green ratio, g/C	0.33	0.33		0.33	0.33		0.38	0.38		0.38	0.38	
Uniform delay, d_1	9.8	10.9		9.4	12.0		8.9	8.6		8.1	10.6	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.11		0.11	0.24		0.11	0.11		0.11	0.21	
Incremental delay, d_2	0.2	0.5		0.0	2.8		0.4	0.1		0.0	1.9	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	0.4	2.5		0.1	4.4		0.7	1.0		0.1	4.7	
Queue Storage Ratio												
Control delay	10.1	11.4		9.4	14.8		9.4	8.7		8.1	12.5	
Lane group LOS	B	B		A	B		A	A		A	B	
Approach delay	11.2			14.7			9.0			12.4		
Approach LOS	B			B			A			B		
Intersection delay	12.3			X_C = 0.65			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN/LIBERTY HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY BLHEXEXR

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	84	262	66	2	129	10	35	156	2	1	79	49
% Heavy vehicles, %HV	1	5	2	0	6	6	1	0	0	0	0	0
Peak-hour factor, PHF	0.88	0.94	0.75	0.50	0.92	0.62	0.80	0.81	0.50	0.25	0.94	0.82
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width	12.0	13.0		12.0	11.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 12.0	G =	G =	G =	G = 11.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 35.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	95	367		4	156		44	197		4	144	
Lane group capacity, c	424	622		353	585		393	595		378	560	
v/c ratio, X	0.22	0.59		0.01	0.27		0.11	0.33		0.01	0.26	
Total green ratio, g/C	0.34	0.34		0.34	0.34		0.31	0.31		0.31	0.31	
Uniform delay, d_1	8.2	9.5		7.6	8.3		8.5	9.2		8.3	9.0	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.18		0.11	0.11		0.11	0.11		0.11	0.11	
Incremental delay, d_2	0.3	1.5		0.0	0.2		0.1	0.3		0.0	0.2	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	0.7	3.4		0.0	1.2		0.3	1.6		0.0	1.1	
Queue Storage Ratio												
Control delay	8.5	11.0		7.6	8.6		8.7	9.5		8.3	9.2	
Lane group LOS	A	B		A	A		A	A		A	A	
Approach delay	10.4			8.5			9.4			9.2		
Approach LOS	B			A			A			A		
Intersection delay	9.7			X_C = 0.47			Intersection LOS			A		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN/LIBERTY HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY BLH35EXP

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	1	0	1	1	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	122	380	96	3	187	14	51	226	3	1	115	71
% Heavy vehicles, %HV	1	5	2	0	6	6	1	0	0	0	0	0
Peak-hour factor, PHF	0.88	0.94	0.75	0.50	0.92	0.62	0.80	0.81	0.50	0.25	0.94	0.82
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width	12.0	13.0		12.0	11.0		12.0	12.0		12.0	12.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 12.0	G =	G =	G =	G = 11.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 35.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	139	532		6	226		64	285		4	209	
Lane group capacity, c	398	622		217	585		371	595		349	560	
v/c ratio, X	0.35	0.86		0.03	0.39		0.17	0.48		0.01	0.37	
Total green ratio, g/C	0.34	0.34		0.34	0.34		0.31	0.31		0.31	0.31	
Uniform delay, d_1	8.6	10.7		7.6	8.7		8.7	9.7		8.3	9.3	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.39		0.11	0.11		0.11	0.11		0.11	0.11	
Incremental delay, d_2	0.5	11.3		0.1	0.4		0.2	0.6		0.0	0.4	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	1.1	6.3		0.0	1.8		0.5	2.5		0.0	1.7	
Queue Storage Ratio												
Control delay	9.1	22.0		7.7	9.1		8.9	10.3		8.3	9.7	
Lane group LOS	A	C		A	A		A	B		A	A	
Approach delay	19.3			9.1			10.0			9.7		
Approach LOS	B			A			B			A		
Intersection delay	14.1			X_C = 0.68			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN / KNIGHTS HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY BKHEXEXA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1	1	1	0	1	1	1	1	2	0
Lane group		LT	R	L	TR		L	T	R	L	TR	
Volume, V (vph)	5	21	45	46	12	8	11	131	60	15	402	4
% Heavy vehicles, %HV	5		1	1	0	0	2	4	0	0	4	0
Peak-hour factor, PHF	0.42	0.58	0.70	0.88	0.38	0.67	0.69	0.80	0.75	0.75	0.95	0.50
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Extension of effective green, e		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type, AT		3	3	3	3		3	3	3	3	3	
Unit extension, UE		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Filtering/metering, I		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Initial unmet demand, Q_b		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.0	10.0	10.0	9.0		11.5	12.0	13.5	10.5	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0	0	0		0	0	0	0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 10.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 52.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		48	64	52	44		16	164	80	20	431	
Lane group capacity, c		309	287	245	315		530	1054	978	680	1936	
v/c ratio, X		0.16	0.22	0.21	0.14		0.03	0.16	0.08	0.03	0.22	
Total green ratio, g/C		0.19	0.19	0.19	0.19		0.58	0.58	0.58	0.58	0.58	
Uniform delay, d_1		17.5	17.7	17.7	17.4		4.7	5.1	4.9	4.7	5.3	
Progression factor, PF		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
I factor		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Delay calibration, k		0.11	0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11	
Incremental delay, d_2		0.2	0.4	0.4	0.2		0.0	0.1	0.0	0.0	0.1	
Initial queue delay, d_3		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Back of Queue		0.6	0.8	0.7	0.6		0.1	1.2	0.6	0.1	1.7	
Queue Storage Ratio												
Control delay		17.7	18.1	18.1	17.6		4.8	5.2	4.9	4.8	5.4	
Lane group LOS		B	B	B	B		A	A	A	A	A	
Approach delay	17.9			17.9			5.1			5.4		
Approach LOS	B			B			A			A		
Intersection delay	8.1			X_C = 0.22			Intersection LOS			A		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN/KNIGHTSHILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035 BKH35EXA
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1	1	1	0	1	1	1	1	2	0
Lane group		LT	R	L	TR		L	T	R	L	TR	
Volume, V (vph)	7	30	65	67	17	12	16	190	87	22	583	6
% Heavy vehicles, %HV	5		1	1	0	0	2	4	0	0	4	0
Peak-hour factor, PHF	0.42	0.58	0.70	0.88	0.38	0.67	0.69	0.80	0.75	0.75	0.95	0.50
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Extension of effective green, e		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type, AT		3	3	3	3		3	3	3	3	3	
Unit extension, UE		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Filtering/metering, I		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Initial unmet demand, Q_b		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.0	10.0	10.0	9.0		11.5	12.0	13.5	10.5	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0	0	0		0	0	0	0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 10.0	G =	G =	G =	G = 30.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 52.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		69	93	76	63		23	237	116	29	626	
Lane group capacity, c		306	287	240	315		438	1054	978	636	1936	
v/c ratio, X		0.23	0.32	0.32	0.20		0.05	0.22	0.12	0.05	0.32	
Total green ratio, g/C		0.19	0.19	0.19	0.19		0.58	0.58	0.58	0.58	0.58	
Uniform delay, d_1		17.7	18.1	18.1	17.6		4.8	5.3	5.0	4.8	5.7	
Progression factor, PF		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
I factor		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Delay calibration, k		0.11	0.11	0.11	0.11		0.11	0.11	0.11	0.11	0.11	
Incremental delay, d_2		0.4	0.7	0.8	0.3		0.1	0.1	0.1	0.0	0.1	
Initial queue delay, d_3		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Back of Queue		0.9	1.3	1.0	0.8		0.2	1.8	0.8	0.2	2.7	
Queue Storage Ratio												
Control delay		18.1	18.7	18.8	18.0		4.8	5.5	5.1	4.8	5.8	
Lane group LOS		B	B	B	B		A	A	A	A	A	
Approach delay	18.5			18.4			5.3			5.8		
Approach LOS	B			B			A			A		
Intersection delay	8.5			X_C = 0.32			Intersection LOS			A		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN / KNIGHTS HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY BKH EXEXP

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1	1	1	0	1	1	1	1	2	0
Lane group		LT	R	L	TR		L	T	R	L	TR	
Volume, V (vph)	9	17	22	90	20	19	46	455	105	11	204	6
% Heavy vehicles, %HV	5		1	1	0	0	2	4	0	0	4	0
Peak-hour factor, PHF	0.56	0.71	0.69	0.80	0.71	0.68	0.82	0.95	0.80	0.69	0.84	0.75
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Extension of effective green, e		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type, AT		3	3	3	3		3	3	3	3	3	
Unit extension, UE		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Filtering/metering, I		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Initial unmet demand, Q_b		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.0	10.0	10.0	9.0		11.5	12.0	13.5	10.5	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0	0	0		0	0	0	0	0	
Min. time for pedestrians, G_p		3.2			3.2			3.2			3.2	

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 12.0	G =	G =	G =	G = 46.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 70.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		40	32	112	56		56	479	131	16	251	
Lane group capacity, c		260	256	220	271		718	1201	1115	547	2202	
v/c ratio, X		0.15	0.13	0.51	0.21		0.08	0.40	0.12	0.03	0.11	
Total green ratio, g/C		0.17	0.17	0.17	0.17		0.66	0.66	0.66	0.66	0.66	
Uniform delay, d_1		24.7	24.6	26.3	24.9		4.3	5.6	4.5	4.2	4.4	
Progression factor, PF		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
I factor		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Delay calibration, k		0.11	0.11	0.12	0.11		0.11	0.11	0.11	0.11	0.11	
Incremental delay, d_2		0.3	0.2	2.0	0.4		0.0	0.2	0.0	0.0	0.0	
Initial queue delay, d_3		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Back of Queue		0.7	0.6	2.2	1.0		0.4	4.8	1.0	0.1	1.0	
Queue Storage Ratio												
Control delay		25.0	24.8	28.3	25.3		4.4	5.8	4.5	4.2	4.5	
Lane group LOS		C	C	C	C		A	A	A	A	A	
Approach delay	24.9			27.3			5.4			4.5		
Approach LOS	C			C			A			A		
Intersection delay	9.5			X_C = 0.42			Intersection LOS			A		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	BOYKIN / KNIGHTS HILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	1	1	1	1	0	1	1	1	1	2	0
Lane group		LT	R	L	TR		L	T	R	L	TR	
Volume, V (vph)	13	25	32	130	29	28	67	660	152	16	296	9
% Heavy vehicles, %HV	5		1	1	0	0	2	4	0	0	4	0
Peak-hour factor, PHF	0.56	0.71	0.69	0.80	0.71	0.68	0.82	0.95	0.80	0.69	0.84	0.75
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Extension of effective green, e		2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Arrival type, AT		3	3	3	3		3	3	3	3	3	
Unit extension, UE		3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Filtering/metering, I		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Initial unmet demand, Q_b		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		10.0	10.0	10.0	9.0		11.5	12.0	13.5	10.5	11.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0	0	0	0		0	0	0	0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 12.0	G =	G =	G =	G = 46.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 70.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		58	46	162	82		82	695	190	23	364	
Lane group capacity, c		254	256	217	271		644	1201	1115	381	2201	
v/c ratio, X		0.23	0.18	0.75	0.30		0.13	0.58	0.17	0.06	0.17	
Total green ratio, g/C		0.17	0.17	0.17	0.17		0.66	0.66	0.66	0.66	0.66	
Uniform delay, d_1		25.0	24.8	27.6	25.3		4.5	6.6	4.6	4.3	4.6	
Progression factor, PF		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
I factor		1.000	1.000	1.000	1.000		1.000	1.000	1.000	1.000	1.000	
Delay calibration, k		0.11	0.11	0.30	0.11		0.11	0.17	0.11	0.11	0.11	
Incremental delay, d_2		0.5	0.3	13.2	0.6		0.1	0.7	0.1	0.1	0.0	
Initial queue delay, d_3		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Back of Queue		1.0	0.8	3.6	1.5		0.7	8.4	1.6	0.2	1.6	
Queue Storage Ratio												
Control delay		25.5	25.1	40.8	26.0		4.6	7.3	4.7	4.4	4.7	
Lane group LOS		C	C	D	C		A	A	A	A	A	
Approach delay	25.3			35.8			6.6			4.6		
Approach LOS	C			D			A			A		
Intersection delay	11.5			X_C = 0.61			Intersection LOS			B		

AM PEAK HOUR

2010 - Existing Geometry
7: S-45-York St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	165	26	66	202	8	27	239	107	8	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.980			0.994			0.957			0.990	
Flt Protected	0.950			0.950				0.996			0.999	
Satd. Flow (prot)	1624	1671	0	1450	1622	0	0	2976	0	0	2970	0
Flt Permitted	0.459			0.505				0.904			0.944	
Satd. Flow (perm)	785	1671	0	771	1622	0	0	2701	0	0	2806	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			75			9	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	13	192	30	77	235	9	31	278	124	9	358	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	222	0	77	244	0	0	433	0	0	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

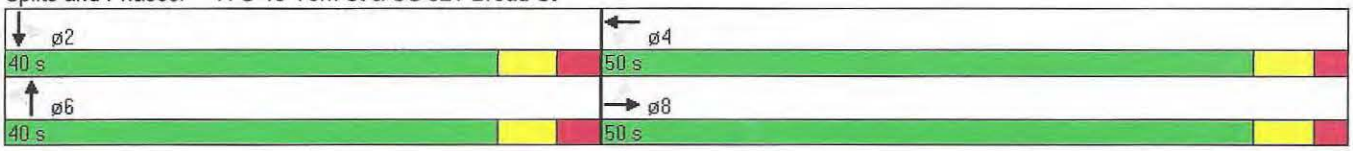
AM PEAK HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	50.0	50.0	0.0	50.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	43.6	43.6		43.6	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.2	19.2		19.2	19.2			57.4			57.4	
Actuated g/C Ratio	0.21	0.21		0.21	0.21			0.64			0.64	
v/c Ratio	0.08	0.60		0.47	0.70			0.25			0.22	
Control Delay	26.1	36.3		38.7	42.4			6.9			8.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	26.1	36.3		38.7	42.4			6.9			8.5	
LOS	C	D		D	D			A			A	
Approach Delay		35.7			41.5			6.9			8.5	
Approach LOS		D			D			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 20.3 Intersection LOS: C
Intersection Capacity Utilization 60.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



AM PEAK HOUR

2010 - Streetscape Geometry
7: S-45-York St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	165	26	66	202	8	27	239	107	8	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.994			0.954			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1671	0	1450	1622	0	1593	1565	0	1624	1480	0
Flt Permitted	0.459			0.505			0.517			0.505		
Satd. Flow (perm)	785	1671	0	771	1622	0	867	1565	0	864	1480	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			28			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	13	192	30	77	235	9	31	278	124	9	358	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	222	0	77	244	0	31	402	0	9	385	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

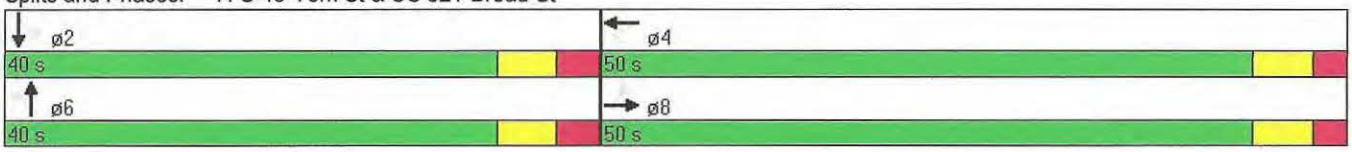
AM PEAK HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	50.0	50.0	0.0	50.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	43.6	43.6		43.6	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.2	19.2		19.2	19.2		59.4	57.4		59.4	57.4	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.66	0.64		0.66	0.64	
v/c Ratio	0.08	0.60		0.47	0.70		0.05	0.40		0.02	0.41	
Control Delay	26.1	36.3		38.7	42.4		7.4	9.8		6.2	9.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.1	36.3		38.7	42.4		7.4	9.8		6.2	9.1	
LOS	C	D		D	D		A	A		A	A	
Approach Delay		35.7			41.5			9.7			9.1	
Approach LOS		D			D			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



AM PEAK HOUR

2035 - Existing Geometry
7: S-45-York St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	239	38	96	293	12	39	347	155	12	447	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.980			0.994			0.957			0.990	
Flt Protected	0.950			0.950				0.996			0.999	
Satd. Flow (prot)	1624	1671	0	1450	1622	0	0	2976	0	0	2970	0
Flt Permitted	0.351			0.400				0.871			0.934	
Satd. Flow (perm)	600	1671	0	611	1622	0	0	2602	0	0	2776	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			75			9	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	19	278	44	112	341	14	45	403	180	14	520	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	322	0	112	355	0	0	628	0	0	572	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

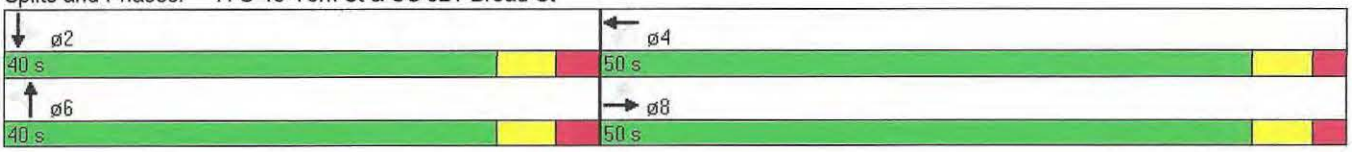
AM PEAK HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	50.0	50.0	0.0	50.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	43.6	43.6		43.6	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	25.9	25.9		25.9	25.9			50.7			50.7	
Actuated g/C Ratio	0.29	0.29		0.29	0.29			0.56			0.56	
v/c Ratio	0.11	0.66		0.64	0.76			0.42			0.37	
Control Delay	21.7	32.6		43.0	38.7			12.1			11.6	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	21.7	32.6		43.0	38.7			12.1			11.6	
LOS	C	C		D	D			B			B	
Approach Delay		32.0			39.7			12.1			11.6	
Approach LOS		C			D			B			B	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 77.5% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



AM PEAK HOUR

2035 -Streetscape Geometry
7: S-45-York St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	239	38	96	293	12	39	347	155	12	447	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.994			0.954			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1671	0	1450	1622	0	1593	1565	0	1624	1481	0
Flt Permitted	0.351			0.400			0.363			0.345		
Satd. Flow (perm)	600	1671	0	611	1622	0	609	1565	0	590	1481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			28			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	19	278	44	112	341	14	45	403	180	14	520	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	322	0	112	355	0	45	583	0	14	558	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

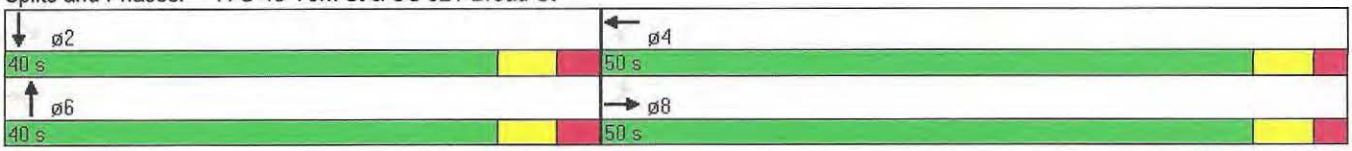
AM PEAK HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	50.0	50.0	0.0	50.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	43.6	43.6		43.6	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	25.9	25.9		25.9	25.9		52.7	50.7		52.7	50.7	
Actuated g/C Ratio	0.29	0.29		0.29	0.29		0.59	0.56		0.59	0.56	
v/c Ratio	0.11	0.66		0.64	0.76		0.13	0.65		0.04	0.67	
Control Delay	21.7	32.6		43.0	38.7		12.1	19.4		13.6	22.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.7	32.6		43.0	38.7		12.1	19.4		13.6	22.4	
LOS	C	C		D	D		B	B		B	C	
Approach Delay		32.0			39.7			18.9			22.2	
Approach LOS		C			D			B			C	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 26.9 Intersection LOS: C
Intersection Capacity Utilization 75.0% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



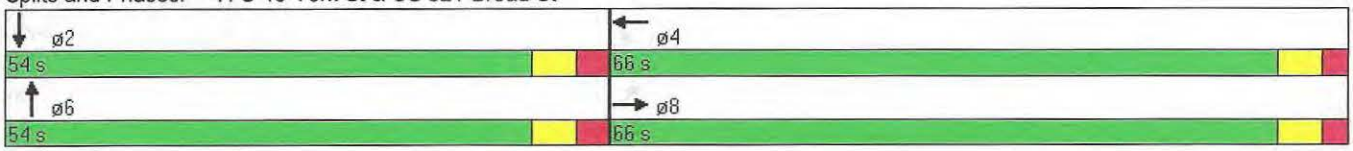
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	173	36	126	134	14	31	306	115	15	296	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.974			0.986			0.962			0.984	
Flt Protected	0.950			0.950				0.997			0.998	
Satd. Flow (prot)	1624	1660	0	1450	1613	0	0	2998	0	0	2953	0
Flt Permitted	0.575			0.428				0.900			0.925	
Satd. Flow (perm)	983	1660	0	653	1613	0	0	2706	0	0	2737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			46			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	18	190	40	138	147	15	34	336	126	16	325	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	230	0	138	162	0	0	496	0	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	66.0	66.0	0.0	66.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	59.6	59.6		59.6	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.8	24.8		24.8	24.8			81.8			81.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21			0.68			0.68	
v/c Ratio	0.09	0.65		1.02	0.48			0.27			0.20	
Control Delay	34.8	48.4		128.7	43.1			8.2			8.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	34.8	48.4		128.7	43.1			8.2			8.1	
LOS	C	D		F	D			A			A	
Approach Delay		47.4			82.5			8.2			8.1	
Approach LOS		D			F			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 68.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



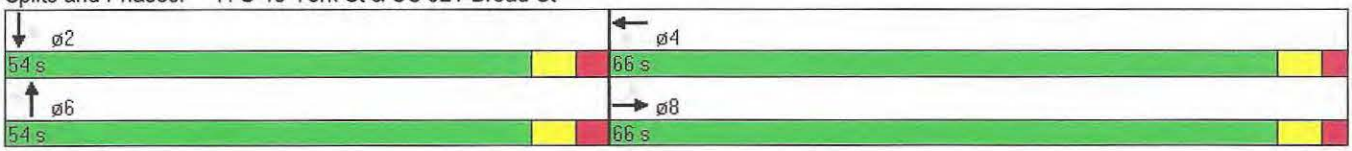
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	173	36	126	134	14	31	306	115	15	296	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.986			0.959			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1660	0	1450	1613	0	1593	1575	0	1624	1472	0
Flt Permitted	0.575			0.428			0.525			0.461		
Satd. Flow (perm)	983	1660	0	653	1613	0	880	1575	0	788	1472	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			18			6	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	18	190	40	138	147	15	34	336	126	16	325	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	230	0	138	162	0	34	462	0	16	367	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	66.0	66.0	0.0	66.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	59.6	59.6		59.6	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.8	24.8		24.8	24.8		83.8	81.8		83.8	81.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.70	0.68		0.70	0.68	
v/c Ratio	0.09	0.65		1.02	0.48		0.06	0.43		0.03	0.37	
Control Delay	34.8	48.4		128.7	43.1		8.2	11.2		7.9	10.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	34.8	48.4		128.7	43.1		8.2	11.2		7.9	10.0	
LOS	C	D		F	D		A	B		A	B	
Approach Delay		47.4			82.5			11.0			9.9	
Approach LOS		D			F			B			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 72.8 (61%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 32.1 Intersection LOS: C
Intersection Capacity Utilization 65.4% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



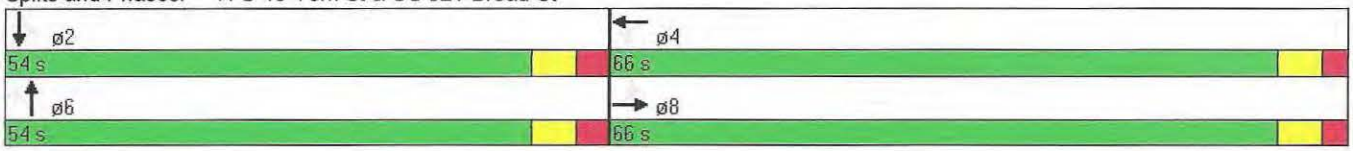
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	251	52	183	194	20	45	444	167	22	429	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.974			0.986			0.962			0.984	
Flt Protected	0.950			0.950				0.997			0.998	
Satd. Flow (prot)	1624	1660	0	1450	1613	0	0	2998	0	0	2953	0
Flt Permitted	0.524			0.392				0.865			0.899	
Satd. Flow (perm)	896	1660	0	598	1613	0	0	2601	0	0	2660	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			6			47			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	25	276	57	201	213	22	49	488	184	24	471	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	333	0	201	235	0	0	721	0	0	555	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	66.0	66.0	0.0	66.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	59.6	59.6		59.6	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.5	39.5		39.5	39.5			67.1			67.1	
Actuated g/C Ratio	0.33	0.33		0.33	0.33			0.56			0.56	
v/c Ratio	0.08	0.60		1.02	0.44			0.49			0.37	
Control Delay	23.1	35.3		108.0	31.2			18.7			17.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	23.1	35.3		108.0	31.2			18.7			17.0	
LOS	C	D		F	C			B			B	
Approach Delay		34.4			66.6			18.7			17.0	
Approach LOS		C			E			B			B	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 31.0 Intersection LOS: C
Intersection Capacity Utilization 88.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



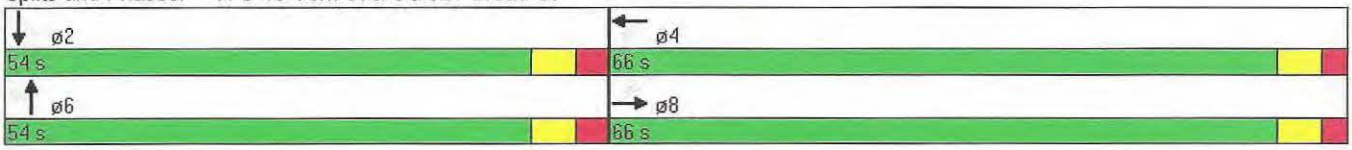
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	251	52	183	194	20	45	444	167	22	429	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.986			0.959			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1660	0	1450	1613	0	1593	1575	0	1624	1472	0
Flt Permitted	0.524			0.392			0.364			0.264		
Satd. Flow (perm)	896	1660	0	598	1613	0	610	1575	0	451	1472	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			6			19			6	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	25	276	57	201	213	22	49	488	184	24	471	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	333	0	201	235	0	49	672	0	24	531	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	66.0	66.0	0.0	66.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	59.6	59.6		59.6	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	39.5	39.5		39.5	39.5		69.1	67.1		69.1	67.1	
Actuated g/C Ratio	0.33	0.33		0.33	0.33		0.58	0.56		0.58	0.56	
v/c Ratio	0.08	0.60		1.02	0.44		0.14	0.76		0.09	0.64	
Control Delay	23.1	35.3		108.0	31.2		17.7	29.5		19.1	27.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.1	35.3		108.0	31.2		17.7	29.5		19.1	27.6	
LOS	C	D		F	C		B	C		B	C	
Approach Delay		34.4			66.6			28.7			27.3	
Approach LOS		C			E			C			C	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 72.8 (61%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 37.3 Intersection LOS: D
Intersection Capacity Utilization 87.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



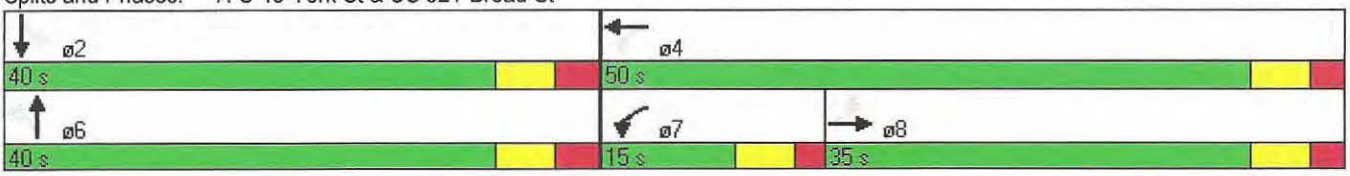
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	165	26	66	202	8	27	239	107	8	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.980			0.994			0.957			0.990	
Flt Protected	0.950			0.950				0.996			0.999	
Satd. Flow (prot)	1624	1671	0	1450	1622	0	0	2976	0	0	2970	0
Flt Permitted	0.607			0.355				0.902			0.943	
Satd. Flow (perm)	1038	1671	0	542	1622	0	0	2695	0	0	2803	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			3			75			9	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	13	192	30	77	235	9	31	278	124	9	358	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	222	0	77	244	0	0	433	0	0	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	35.0	35.0	0.0	15.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	16.7%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	28.6	28.6		9.0	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	17.1	17.1		30.7	30.3			46.3			46.3	
Actuated g/C Ratio	0.19	0.19		0.34	0.34			0.51			0.51	
v/c Ratio	0.07	0.68		0.27	0.45			0.30			0.27	
Control Delay	27.9	42.8		19.4	23.6			13.1			14.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	27.9	42.8		19.4	23.6			13.1			14.0	
LOS	C	D		B	C			B			B	
Approach Delay		42.0			22.6			13.1			14.0	
Approach LOS		D			C			B			B	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 20.5 Intersection LOS: C
Intersection Capacity Utilization 60.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



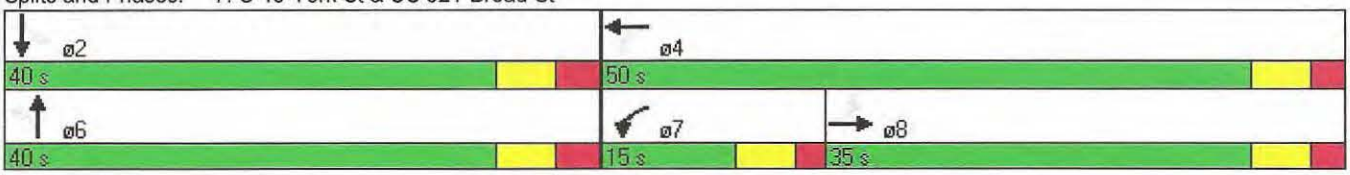
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	165	26	66	202	8	27	239	107	8	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.994			0.954			0.989	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1671	0	1450	1622	0	1593	1565	0	1624	1480	0
Flt Permitted	0.607			0.355			0.478			0.464		
Satd. Flow (perm)	1038	1671	0	542	1622	0	801	1565	0	793	1480	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			3			28			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	13	192	30	77	235	9	31	278	124	9	358	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	222	0	77	244	0	31	402	0	9	385	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	35.0	35.0	0.0	15.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	16.7%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	28.6	28.6		9.0	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	17.1	17.1		29.8	29.4		49.2	47.2		49.2	47.2	
Actuated g/C Ratio	0.19	0.19		0.33	0.33		0.55	0.52		0.55	0.52	
v/c Ratio	0.07	0.68		0.29	0.46		0.07	0.48		0.02	0.49	
Control Delay	27.9	42.8		20.7	24.7		13.8	17.5		8.9	12.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	27.9	42.8		20.7	24.7		13.8	17.5		8.9	12.5	
LOS	C	D		C	C		B	B		A	B	
Approach Delay		42.0			23.7			17.2			12.4	
Approach LOS		D			C			B			B	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 21.6 Intersection LOS: C
Intersection Capacity Utilization 57.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



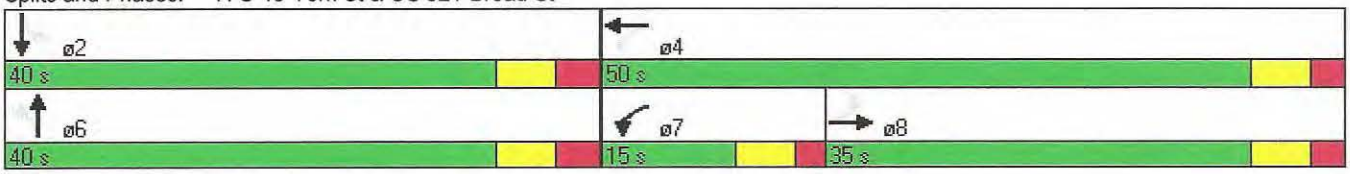
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	239	38	96	293	12	39	347	155	12	447	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.980			0.994			0.957			0.990	
Flt Protected	0.950			0.950				0.996			0.999	
Satd. Flow (prot)	1624	1671	0	1450	1622	0	0	2976	0	0	2970	0
Flt Permitted	0.549			0.279				0.867			0.933	
Satd. Flow (perm)	939	1671	0	426	1622	0	0	2590	0	0	2773	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			3			75			9	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	19	278	44	112	341	14	45	403	180	14	520	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	322	0	112	355	0	0	628	0	0	572	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

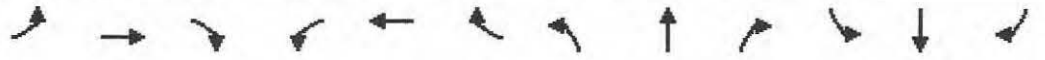
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	35.0	35.0	0.0	15.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	16.7%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	28.6	28.6		9.0	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	22.3	22.3		36.0	35.6			41.0			41.0	
Actuated g/C Ratio	0.25	0.25		0.40	0.40			0.46			0.46	
v/c Ratio	0.08	0.76		0.40	0.55			0.51			0.45	
Control Delay	24.4	42.3		19.1	22.8			19.2			19.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	24.4	42.3		19.1	22.8			19.2			19.5	
LOS	C	D		B	C			B			B	
Approach Delay		41.3			21.9			19.2			19.5	
Approach LOS		D			C			B			B	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 23.7 Intersection LOS: C
Intersection Capacity Utilization 77.2% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St





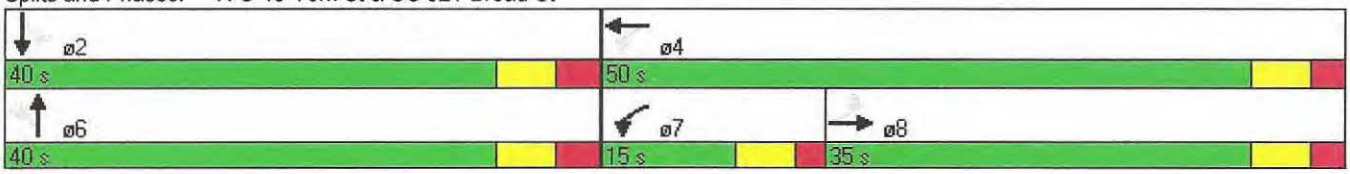
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	239	38	96	293	12	39	347	155	12	447	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.980			0.994			0.954			0.990	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1671	0	1450	1622	0	1593	1565	0	1624	1481	0
Flt Permitted	0.549			0.279			0.297			0.275		
Satd. Flow (perm)	939	1671	0	426	1622	0	498	1565	0	470	1481	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			3			28			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	19	278	44	112	341	14	45	403	180	14	520	38
Shared Lane Traffic (%)												
Lane Group Flow (vph)	19	322	0	112	355	0	45	583	0	14	558	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	35.0	35.0	0.0	15.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	38.9%	38.9%	0.0%	16.7%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	28.6	28.6		9.0	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	22.3	22.3		34.7	34.3		44.3	42.3		44.3	42.3	
Actuated g/C Ratio	0.25	0.25		0.39	0.38		0.49	0.47		0.49	0.47	
v/c Ratio	0.08	0.76		0.43	0.57		0.18	0.78		0.06	0.80	
Control Delay	24.4	42.4		21.0	24.3		19.4	31.1		20.2	35.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.4	42.4		21.0	24.3		19.4	31.1		20.2	35.9	
LOS	C	D		C	C		B	C		C	D	
Approach Delay		41.4			23.5			30.2			35.5	
Approach LOS		D			C			C			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 32.1 Intersection LOS: C
Intersection Capacity Utilization 74.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



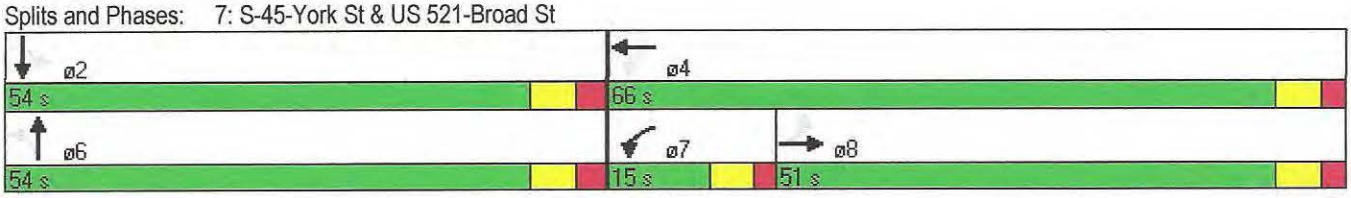
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	173	36	126	134	14	31	306	115	15	296	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.974			0.986			0.962			0.984	
Flt Protected	0.950			0.950				0.997			0.998	
Satd. Flow (prot)	1624	1660	0	1450	1613	0	0	2998	0	0	2953	0
Flt Permitted	0.654			0.303				0.898			0.924	
Satd. Flow (perm)	1118	1660	0	463	1613	0	0	2700	0	0	2734	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			46			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	18	190	40	138	147	15	34	336	126	16	325	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	230	0	138	162	0	0	496	0	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	51.0	51.0	0.0	15.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	42.5%	42.5%	0.0%	12.5%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	44.6	44.6		9.0	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	21.6	21.6		44.5	44.1			62.5			62.5	
Actuated g/C Ratio	0.18	0.18		0.37	0.37			0.52			0.52	
v/c Ratio	0.09	0.75		0.45	0.27			0.35			0.27	
Control Delay	38.8	59.0		28.7	24.7			17.9			15.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	38.8	59.0		28.7	24.7			17.9			15.3	
LOS	D	E		C	C			B			B	
Approach Delay		57.5			26.6			17.9			15.3	
Approach LOS		E			C			B			B	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 25.9 Intersection LOS: C
Intersection Capacity Utilization 67.7% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



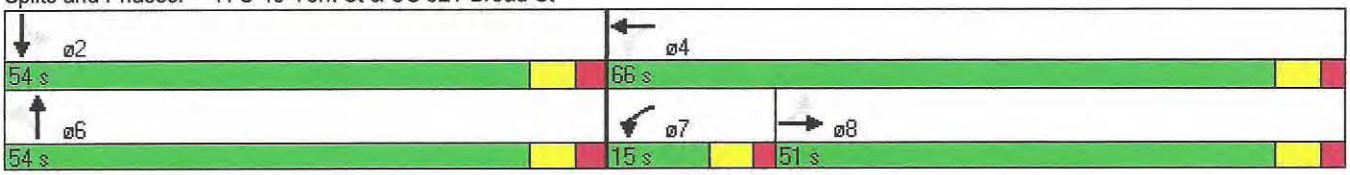
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	173	36	126	134	14	31	306	115	15	296	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.986			0.959			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1660	0	1450	1613	0	1593	1575	0	1624	1472	0
Flt Permitted	0.654			0.303			0.483			0.405		
Satd. Flow (perm)	1118	1660	0	463	1613	0	810	1575	0	693	1472	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			18			6	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	18	190	40	138	147	15	34	336	126	16	325	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	230	0	138	162	0	34	462	0	16	367	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

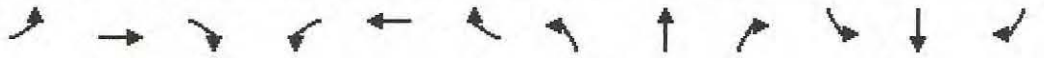
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	51.0	51.0	0.0	15.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	42.5%	42.5%	0.0%	12.5%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	44.6	44.6		9.0	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	21.5	21.5		42.9	42.5		66.1	64.1		66.1	64.1	
Actuated g/C Ratio	0.18	0.18		0.36	0.35		0.55	0.53		0.55	0.53	
v/c Ratio	0.09	0.75		0.48	0.28		0.08	0.54		0.04	0.46	
Control Delay	38.8	59.3		31.3	26.4		16.3	22.4		15.1	18.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.8	59.3		31.3	26.4		16.3	22.4		15.1	18.5	
LOS	D	E		C	C		B	C		B	B	
Approach Delay		57.8			28.7			22.0			18.4	
Approach LOS		E			C			C			B	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 65.1% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St





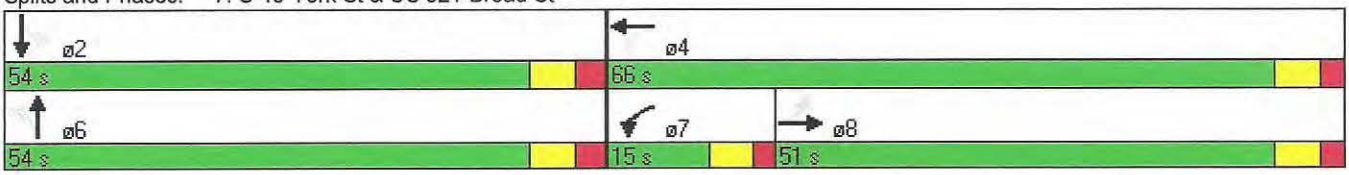
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	251	52	183	194	20	45	444	167	22	429	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.974			0.986			0.962			0.984	
Flt Protected	0.950			0.950				0.997			0.998	
Satd. Flow (prot)	1624	1660	0	1450	1613	0	0	2998	0	0	2953	0
Flt Permitted	0.612			0.238				0.863			0.896	
Satd. Flow (perm)	1047	1660	0	363	1613	0	0	2595	0	0	2651	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			47			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	25	276	57	201	213	22	49	488	184	24	471	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	333	0	201	235	0	0	721	0	0	555	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	51.0	51.0	0.0	15.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	42.5%	42.5%	0.0%	12.5%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	44.6	44.6		9.0	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	29.2	29.2		53.2	52.8			53.8			53.8	
Actuated g/C Ratio	0.24	0.24		0.44	0.44			0.45			0.45	
v/c Ratio	0.10	0.81		0.63	0.33			0.61			0.46	
Control Delay	32.9	56.3		29.8	21.6			27.4			23.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	32.9	56.3		29.8	21.6			27.4			23.1	
LOS	C	E		C	C			C			C	
Approach Delay		54.7			25.4			27.4			23.1	
Approach LOS		D			C			C			C	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 88.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



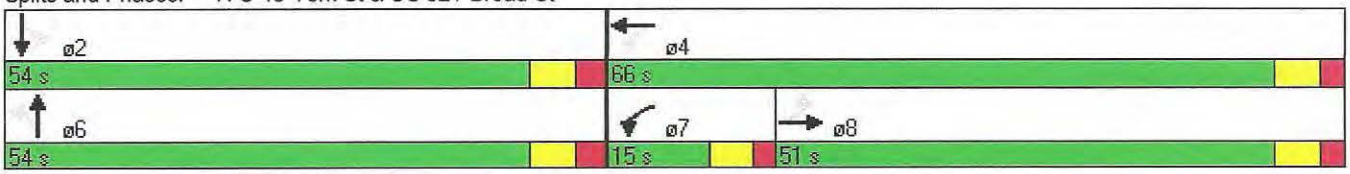
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	251	52	183	194	20	45	444	167	22	429	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.986			0.959			0.983	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	1660	0	1450	1613	0	1593	1575	0	1624	1472	0
Flt Permitted	0.612			0.238			0.343			0.236		
Satd. Flow (perm)	1047	1660	0	363	1613	0	575	1575	0	404	1472	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			6			19			6	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	25	276	57	201	213	22	49	488	184	24	471	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	333	0	201	235	0	49	672	0	24	531	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		8		7	4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		7	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		10.0	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	51.0	51.0	0.0	15.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	42.5%	42.5%	0.0%	12.5%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	44.6	44.6		9.0	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.0	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.0	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)	29.2	29.2		44.6	44.2		64.4	62.4		64.4	62.4	
Actuated g/C Ratio	0.24	0.24		0.37	0.37		0.54	0.52		0.54	0.52	
v/c Ratio	0.10	0.81		0.93	0.39		0.16	0.81		0.11	0.69	
Control Delay	32.9	56.3		75.8	28.2		18.5	34.2		20.6	31.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.9	56.3		75.8	28.2		18.5	34.2		20.6	31.0	
LOS	C	E		E	C		B	C		C	C	
Approach Delay		54.7			50.1			33.2			30.6	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 39.8 Intersection LOS: D
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



TWO-WAY STOP CONTROL SUMMARY YMEXEXA

General Information		Site Information	
Analyst	GGS	Intersection	YORK/MILL
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/5/2011	Analysis Year	2010
Analysis Time Period	AM PEAK HOUR		

Project Description: 2010 VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: MILL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	56	159	3	72	244	7
Peak-Hour Factor, PHF	0.74	0.76	0.25	0.69	0.80	0.88
Hourly Flow Rate, HFR (veh/h)	75	209	12	104	304	7
Percent Heavy Vehicles	12	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	7	27	7	36	49
Peak-Hour Factor, PHF	0.25	0.58	0.68	0.58	0.82	0.88
Hourly Flow Rate, HFR (veh/h)	4	12	39	12	43	55
Percent Heavy Vehicles	0	2	1	0	0	11
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	75	104		55			110	
C (m) (veh/h)	1195	1354		457			350	
v/c	0.06	0.08		0.12			0.31	
95% queue length	0.20	0.25		0.41			1.32	
Control Delay (s/veh)	8.2	7.9		14.0			19.9	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--	14.0			19.9		
Approach LOS	--	--	B			C		

TWO-WAY STOP CONTROL SUMMARY

YM35EXA

General Information		Site Information	
Analyst	GGS	Intersection	YORK/MILL
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	4/19/2011	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description 2035 VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: MILL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	65	247	4	104	362	10
Peak-Hour Factor, PHF	0.74	0.76	0.25	0.69	0.80	0.88
Hourly Flow Rate, HFR (veh/h)	87	325	16	150	452	11
Percent Heavy Vehicles	12	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	10	39	10	52	63
Peak-Hour Factor, PHF	0.25	0.58	0.68	0.58	0.82	0.88
Hourly Flow Rate, HFR (veh/h)	4	17	57	17	63	71
Percent Heavy Vehicles	0	2	1	0	0	11
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	87	150		78			151	
C (m) (veh/h)	1048	1224		274			187	
v/c	0.08	0.12		0.28			0.81	
95% queue length	0.27	0.42		1.14			5.60	
Control Delay (s/veh)	8.7	8.4		23.3			75.1	
LOS	A	A		C			F	
Approach Delay (s/veh)	--	--	23.3			75.1		
Approach LOS	--	--	C			F		

TWO-WAY STOP CONTROL SUMMARY

YMEXEXP

General Information		Site Information	
Analyst	GGS	Intersection	YORK/MILL
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/5/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description: 2010 VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: MILL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	77	232	1	25	176	10
Peak-Hour Factor, PHF	0.84	0.82	0.25	0.62	0.92	0.50
Hourly Flow Rate, HFR (veh/h)	91	282	4	40	191	20
Percent Heavy Vehicles	12	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	2	12	36	15	21	54
Peak-Hour Factor, PHF	0.25	0.60	0.90	0.62	0.75	0.79
Hourly Flow Rate, HFR (veh/h)	8	19	40	24	28	68
Percent Heavy Vehicles	0	2	1	0	0	11
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	91	40		67			120	
C (m) (veh/h)	1302	1282		446			448	
v/c	0.07	0.03		0.15			0.27	
95% queue length	0.23	0.10		0.52			1.07	
Control Delay (s/veh)	8.0	7.9		14.5			15.9	
LOS	A	A		B			C	
Approach Delay (s/veh)	--	--	14.5			15.9		
Approach LOS	--	--	B			C		

TWO-WAY STOP CONTROL SUMMARY

YM35 EXP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	YORK/MILL
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: MILL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	101	347	1	36	263	14
Peak-Hour Factor, PHF	0.84	0.82	0.25	0.62	0.92	0.50
Hourly Flow Rate, HFR (veh/h)	120	423	4	58	285	28
Percent Heavy Vehicles	12	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	3	17	52	22	30	
Peak-Hour Factor, PHF	0.25	0.60	0.90	0.62	0.75	0.79
Hourly Flow Rate, HFR (veh/h)	12	28	57	35	40	98
Percent Heavy Vehicles	0	2	1	0	0	11
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	120	58		97			173	
C (m) (veh/h)	1193	1138		268			272	
v/c	0.10	0.05		0.36			0.64	
95% queue length	0.33	0.16		1.58			3.97	
Control Delay (s/veh)	8.4	8.3		25.9			38.8	
LOS	A	A		D			E	
Approach Delay (s/veh)	--	--	25.9			38.8		
Approach LOS	--	--	D			E		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / MILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

1M EXEXA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	128	428	13	51	837	44	8	27	40	32	43	131
% Heavy vehicles, %HV	0		1	10	2	1	0	1	14	1	1	0
Peak-hour factor, PHF	0.94	0.96	0.41	0.71	0.87	0.85	0.67	0.96	0.77	0.67	0.83	0.70
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	1	0	0	5	0	0	2	0	0	0	0	0
Lane width	10.0	12.0		13.0	12.0		11.5	12.0		9.5	10.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 94.0	G =	G =	G =	G = 14.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	136	478		72	1014		12	80		48	239	
Lane group capacity, c	335	2500		603	2482		60	164		127	164	
v/c ratio, X	0.41	0.19		0.12	0.41		0.20	0.49		0.38	1.46	
Total green ratio, g/C	0.78	0.78		0.78	0.78		0.12	0.12		0.12	0.12	
Uniform delay, d_1	4.1	3.3		3.1	4.1		47.9	49.6		49.0	53.0	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.11		0.11	0.11		0.11	0.11		0.11	0.50	
Incremental delay, d_2	0.8	0.0		0.1	0.1		1.6	2.3		1.9	236.3	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	1.7	2.4		0.7	6.3		0.4	2.8		1.6	18.2	
Queue Storage Ratio												
Control delay	4.9	3.4		3.2	4.3		49.6	51.9		50.9	289.3	
Lane group LOS	A	A		A	A		D	D		D	F	
Approach delay	3.7			4.2			51.6			249.4		
Approach LOS	A			A			D			F		
Intersection delay	40.0			X_C = 0.54			Intersection LOS			D		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / mcc
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY; CHANGE TIMING

IMEXCTA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	128	428	13	51	837	44	8	27	40	32	43	131
% Heavy vehicles, %HV	0		1	10	2	1	0	1	14	1	1	0
Peak-hour factor, PHF	0.94	0.96	0.41	0.71	0.87	0.85	0.67	0.96	0.77	0.67	0.83	0.70
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	1	0	0	5	0	0	2	0	0	0	0	0
Lane width	10.0	12.0		13.0	12.0		11.5	12.0		9.5	10.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 81.0	G =	G =	G =	G = 27.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	136	478		72	1014		12	80		48	239	
Lane group capacity, c	266	2154		518	2138		160	317		246	316	
v/c ratio, X	0.51	0.22		0.14	0.47		0.08	0.25		0.20	0.76	
Total green ratio, g/C	0.68	0.68		0.68	0.68		0.22	0.22		0.22	0.22	
Uniform delay, d_1	9.7	7.5		7.0	9.3		36.7	38.2		37.7	43.4	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.12	0.11		0.11	0.11		0.11	0.11		0.11	0.31	
Incremental delay, d_2	1.7	0.1		0.1	0.2		0.2	0.4		0.4	10.0	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	2.6	3.4		0.9	9.3		0.3	2.3		1.4	8.6	
Queue Storage Ratio												
Control delay	11.3	7.5		7.1	9.5		36.9	38.6		38.1	53.5	
Lane group LOS	B	A		A	A		D	D		D	D	
Approach delay	8.4			9.3			38.4			50.9		
Approach LOS	A			A			D			D		
Intersection delay	16.1			X_C = 0.57			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / Mile
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY; CHANGE TIMING

1M35CTA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	186	621	19	66	1214	64	12	39	42	46	62	190
% Heavy vehicles, %HV	0		1	10	2	1	0	1	14	1	1	0
Peak-hour factor, PHF	0.94	0.96	0.41	0.71	0.87	0.85	0.67	0.96	0.77	0.67	0.83	0.70
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	1	0	0	5	0	0	2	0	0	0	0	0
Lane width	10.0	12.0		13.0	12.0		11.5	12.0		9.5	10.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 81.0	G =	G =	G =	G = 27.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	198	693		93	1470		18	96		69	346	
Lane group capacity, c	138	2154		401	2139		84	324		242	316	
v/c ratio, X	1.43	0.32		0.23	0.69		0.21	0.30		0.29	1.09	
Total green ratio, g/C	0.68	0.68		0.68	0.68		0.22	0.22		0.22	0.22	
Uniform delay, d_1	19.5	8.1		7.5	11.8		37.9	38.6		38.5	46.5	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.50	0.11		0.11	0.26		0.11	0.11		0.11	0.50	
Incremental delay, d_2	232.0	0.1		0.3	0.9		1.3	0.5		0.7	78.5	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	14.8	5.4		1.3	17.5		0.5	2.8		2.0	18.0	
Queue Storage Ratio												
Control delay	251.5	8.2		7.8	12.8		39.1	39.1		39.2	125.0	
Lane group LOS	F	A		A	B		D	D		D	F	
Approach delay	62.2			12.5			39.1			110.7		
Approach LOS	E			B			D			F		
Intersection delay	42.0			X_C = 1.35			Intersection LOS			D		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 | MILL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT 1 M EXEXP
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	133	947	35	43	701	47	38	55	69	49	32	146
% Heavy vehicles, %HV	0	1	1	10	2	1	0	1	14	1	1	0
Peak-hour factor, PHF	0.90	0.95	0.88	0.83	0.93	0.73	0.56	0.86	0.86	0.88	0.73	0.85
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	1	0	0	1	0	0	0	0	0	4	0	0
Lane width	10.0	12.0		13.0	12.0		11.5	12.0		9.5	10.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 93.5	G =	G =	G =	G = 15.5	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 121.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	148	1037		52	818		68	144		56	216	
Lane group capacity, c	412	2477		321	2439		61	185		105	178	
v/c ratio, X	0.36	0.42		0.16	0.34		1.11	0.78		0.53	1.21	
Total green ratio, g/C	0.77	0.77		0.77	0.77		0.13	0.13		0.13	0.13	
Uniform delay, d_1	4.3	4.6		3.6	4.2		52.8	51.1		49.4	52.8	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.11		0.11	0.11		0.50	0.33		0.14	0.50	
Incremental delay, d_2	0.5	0.1		0.2	0.1		150.2	18.8		5.2	136.5	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	1.8	6.8		0.5	4.9		3.9	5.6		2.0	13.3	
Queue Storage Ratio												
Control delay	4.9	4.7		3.8	4.3		202.9	69.9		54.6	189.3	
Lane group LOS	A	A		A	A		F	E		D	F	
Approach delay	4.8			4.3			112.6			161.5		
Approach LOS	A			A			F			F		
Intersection delay	30.4			X_C = 0.53			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US1/MLL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT 1MEXCTP
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY; CHANGE TIMING

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	133	947	35	43	701	47	38	55	69	49	32	146
% Heavy vehicles, %HV	0	1	1	10	2	1	0	1	14	1	1	0
Peak-hour factor, PHF	0.90	0.95	0.88	0.83	0.93	0.73	0.56	0.86	0.86	0.88	0.73	0.85
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	1	0	0	1	0	0	0	0	0	4	0	0
Lane width	10.0	12.0		13.0	12.0		11.5	12.0		9.5	10.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 80.5	G =	G =	G =	G = 28.5	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 121.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	148	1037		52	818		68	144		56	216	
Lane group capacity, c	335	2132		253	2100		189	341		226	329	
v/c ratio, X	0.44	0.49		0.21	0.39		0.36	0.42		0.25	0.66	
Total green ratio, g/C	0.67	0.67		0.67	0.67		0.24	0.24		0.24	0.24	
Uniform delay, d_1	9.6	10.0		7.9	9.1		38.6	39.3		37.5	41.8	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.11	0.11		0.11	0.11		0.11	0.11		0.11	0.23	
Incremental delay, d_2	0.9	0.2		0.4	0.1		1.2	0.8		0.6	4.7	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	2.7	9.9		0.8	7.1		2.1	4.4		1.6	7.3	
Queue Storage Ratio												
Control delay	10.5	10.2		8.3	9.3		39.8	40.1		38.1	46.5	
Lane group LOS	B	B		A	A		D	D		D	D	
Approach delay	10.2			9.2			40.0			44.8		
Approach LOS	B			A			D			D		
Intersection delay	16.1			X_C = 0.53			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / Mill
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY; CHANGE TIMING

1M35CTP

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	1	1	0	1	1	0
Lane group	L	TR		L	TR		L	TR		L	TR	
Volume, V (vph)	193	1373	51	56	1016	68	55	80	89	71	46	212
% Heavy vehicles, %HV	0		1	10	2	1	0	1	14	1	1	0
Peak-hour factor, PHF	0.90	0.95	0.88	0.83	0.93	0.73	0.56	0.86	0.86	0.88	0.73	0.85
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Arrival type, AT	3	3		3	3		3	3		3	3	
Unit extension, UE	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Ped / Bike / RTOR volumes	1	0	0	1	0	0	0	0	0	4	0	0
Lane width	10.0	12.0		13.0	12.0		11.5	12.0		9.5	10.0	
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0		0	0		0	0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 72.5	G =	G =	G =	G = 36.5	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 121.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	214	1503		67	1185		98	196		81	312	
Lane group capacity, c	167	1920		93	1892		196	441		262	422	
v/c ratio, X	1.28	0.78		0.72	0.63		0.50	0.44		0.31	0.74	
Total green ratio, g/C	0.60	0.60		0.60	0.60		0.30	0.30		0.30	0.30	
Uniform delay, d_1	24.3	18.3		17.1	15.6		34.7	34.1		32.5	38.0	
Progression factor, PF	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
I factor	1.000	1.000		1.000	1.000		1.000	1.000		1.000	1.000	
Delay calibration, k	0.50	0.33		0.28	0.21		0.11	0.11		0.11	0.30	
Incremental delay, d_2	164.4	2.2		23.7	0.7		2.0	0.7		0.7	6.8	
Initial queue delay, d_3	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Back of Queue	14.1	22.7		2.0	14.8		3.0	5.7		2.3	10.7	
Queue Storage Ratio												
Control delay	188.7	20.5		40.8	16.2		36.7	34.8		33.2	44.8	
Lane group LOS	F	C		D	B		D	C		C	D	
Approach delay	41.5			17.5			35.4			42.4		
Approach LOS	D			B			D			D		
Intersection delay	32.9			X_C = 1.10			Intersection LOS			C		

TWO-WAY STOP CONTROL SUMMARY

YRExExA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	RIPPONDONCF/YORK
Jurisdiction	SCDOT
Analysis Year	2012

Project Description 2012 VOLUMES AND GEOMETRY

East/West Street: YORK | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	43	134			270	4
Peak-Hour Factor, PHF	0.77	0.67	0.72	0.73	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	55	199	0	0	465	16
Percent Heavy Vehicles	2	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				3	1	117
Peak-Hour Factor, PHF	0.62	0.25	0.61	0.75	0.25	0.42
Hourly Flow Rate, HFR (veh/h)	0	0	0	4	4	278
Percent Heavy Vehicles	3	0	12	0	0	5
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LTR	
v (veh/h)	55						286	
C (m) (veh/h)	1082						548	
v/c	0.05						0.52	
95% queue length	0.16						3.00	
Control Delay (s/veh)	8.5						18.5	
LOS	A						C	
Approach Delay (s/veh)	--	--				18.5		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY

YRFXEXP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	RIPPONDONCF/YORK
Jurisdiction	SCDOT
Analysis Year	2012

Project Description: 2012 VOLUMES AND GEOMETRY

East/West Street: YORK | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	54	229			118	7
Peak-Hour Factor, PHF	0.90	0.84	0.72	0.73	0.82	0.58
Hourly Flow Rate, HFR (veh/h)	60	272	0	0	143	12
Percent Heavy Vehicles	2	--	--	11	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LT					TR
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				10	1	45
Peak-Hour Factor, PHF	0.62	0.25	0.61	0.62	0.25	0.66
Hourly Flow Rate, HFR (veh/h)	0	0	0	16	4	68
Percent Heavy Vehicles	3	0	12	0	0	5
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LT						LTR	
v (veh/h)	60						88	
C (m) (veh/h)	1425						719	
v/c	0.04						0.12	
95% queue length	0.13						0.42	
Control Delay (s/veh)	7.6						10.7	
LOS	A						B	
Approach Delay (s/veh)	--	--				10.7		
Approach LOS	--	--				B		

TWO-WAY STOP CONTROL SUMMARY

YR35BSA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	RIPPONDON/YORK
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES AND REALIGNMENT

East/West Street: YORK | North/South Street: RIPPONDON

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		79	187	4	181	
Peak-Hour Factor, PHF	0.62	0.77	0.67	0.75	0.42	0.66
Hourly Flow Rate, HFR (veh/h)	0	102	279	5	430	0
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				373	1	6
Peak-Hour Factor, PHF	0.90	0.84	0.72	0.58	0.25	0.25
Hourly Flow Rate, HFR (veh/h)	0	0	0	643	4	24
Percent Heavy Vehicles	2	0	6	1	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		5		671				
C (m) (veh/h)		1189		422				
v/c		0.00		1.59				
95% queue length		0.01		37.78				
Control Delay (s/veh)		8.0		300.3				
LOS		A		F				
Approach Delay (s/veh)	--	--	300.3					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

YR35NRA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	RIPPONDON/YORK
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES AND REALIGNMENT + NBRTL

East/West Street: YORK | North/South Street: RIPPONDON

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		79	187	4	181	
Peak-Hour Factor, PHF	0.62	0.77	0.67	0.75	0.42	0.66
Hourly Flow Rate, HFR (veh/h)	0	102	279	5	430	0
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	1	1	1	0
Configuration		T	R	L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				373	1	6
Peak-Hour Factor, PHF	0.90	0.84	0.72	0.58	0.25	0.25
Hourly Flow Rate, HFR (veh/h)	0	0	0	643	4	24
Percent Heavy Vehicles	2	0	6	1	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		5		671				
C (m) (veh/h)		1189		509				
v/c		0.00		1.32				
95% queue length		0.01		28.94				
Control Delay (s/veh)		8.0		180.2				
LOS		A		F				
Approach Delay (s/veh)	--	--	180.2					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

Y R3 SNRWR A

General Information		Site Information	
Analyst	GGS	Intersection	RIPPONDON/YORK
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	4/19/2012	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES AND REALIGNMENT + NBRTL + WBRTL

East/West Street: YORK | North/South Street: RIPPONDON

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		79	187	4	181	
Peak-Hour Factor, PHF	0.62	0.77	0.67	0.75	0.42	0.66
Hourly Flow Rate, HFR (veh/h)	0	102	279	5	430	0
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	1	1	1	0
Configuration		T	R	L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				373	1	6
Peak-Hour Factor, PHF	0.90	0.84	0.72	0.58	0.25	0.25
Hourly Flow Rate, HFR (veh/h)	0	0	0	643	4	24
Percent Heavy Vehicles	2	0	6	1	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	1	0
Configuration				L		TR

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	L		TR			
v (veh/h)		5	643		28			
C (m) (veh/h)		1189	501		815			
v/c		0.00	1.28		0.03			
95% queue length		0.01	26.76		0.11			
Control Delay (s/veh)		8.0	166.6		9.6			
LOS		A	F		A			
Approach Delay (s/veh)	--	--	160.1					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

YR35BSP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	RIPPONDON/YORK
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES AND REALIGNMENT

East/West Street: YORK | North/South Street: RIPPONDON

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		92	318	14	76	
Peak-Hour Factor, PHF	0.62	0.90	0.84	0.62	0.66	0.66
Hourly Flow Rate, HFR (veh/h)	0	102	378	22	115	0
Percent Heavy Vehicles	3	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	1	1	0
Configuration			TR	L	T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)				161	1	10
Peak-Hour Factor, PHF	0.90	0.84	0.72	0.82	0.25	0.58
Hourly Flow Rate, HFR (veh/h)	0	0	0	196	4	17
Percent Heavy Vehicles	2	0	6	1	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		22		217				
C (m) (veh/h)		1093		568				
v/c		0.02		0.38				
95% queue length		0.06		1.78				
Control Delay (s/veh)		8.4		15.2				
LOS		A		C				
Approach Delay (s/veh)	--	--	15.2					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

PR-EXEXA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	DEKALB/RIPPONDON
Jurisdiction	SCDOT
Analysis Year	2012

Project Description: 2012 VOLUMES AND GEOMETRY

East/West Street: DEKALB STREET | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		499	4	47	931	
Peak-Hour Factor, PHF	0.79	0.94	0.50	0.84	0.87	0.25
Hourly Flow Rate, HFR (veh/h)	0	530	8	55	1070	0
Percent Heavy Vehicles	8	--	--	7	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	1	38			
Peak-Hour Factor, PHF	0.25	0.25	0.68	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	4	4	55	0	0	0
Percent Heavy Vehicles	0	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		55		63				
C (m) (veh/h)		992		443				
v/c		0.06		0.14				
95% queue length		0.18		0.49				
Control Delay (s/veh)		8.8		14.5				
LOS		A		B				
Approach Delay (s/veh)	--	--	14.5					
Approach LOS	--	--	B					

TWO-WAY STOP CONTROL SUMMARY

DR35EXA

General Information		Site Information	
Analyst	GGS	Intersection	DEKALB/RIPPONDON
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	4/19/2012	Analysis Year	2035
Analysis Time Period	AM PEAK HOUR		

Project Description: 2035 VOLUMES AND GEOMETRY

East/West Street: DEKALB STREET | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		688	6	82	1305	
Peak-Hour Factor, PHF	0.79	0.94	0.50	0.84	0.87	0.25
Hourly Flow Rate, HFR (veh/h)	0	731	12	97	1499	0
Percent Heavy Vehicles	8	--	--	25	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	1	70			
Peak-Hour Factor, PHF	0.25	0.25	0.68	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	4	4	102	0	0	0
Percent Heavy Vehicles	0	0	27	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		97		110				
C (m) (veh/h)		724		299				
v/c		0.13		0.37				
95% queue length		0.46		1.63				
Control Delay (s/veh)		10.7		23.9				
LOS		B		C				
Approach Delay (s/veh)	--	--	23.9					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

DR EX EXP

General Information		Site Information	
Analyst	GGS	Intersection	DEKALB/RIPPONDON
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	4/19/2012	Analysis Year	2012
Analysis Time Period	PM PEAK HOUR		

Project Description: 2012 VOLUMES AND GEOMETRY

East/West Street: DEKALB STREET | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		917	16	35	685	
Peak-Hour Factor, PHF	0.79	0.94	0.44	0.80	0.90	0.25
Hourly Flow Rate, HFR (veh/h)	0	975	36	43	761	0
Percent Heavy Vehicles	8	--	--	7	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	12	1	59			
Peak-Hour Factor, PHF	0.72	0.25	0.68	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	16	4	86	0	0	0
Percent Heavy Vehicles	0	0	2	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		43		106				
C (m) (veh/h)		652		297				
v/c		0.07		0.36				
95% queue length		0.21		1.56				
Control Delay (s/veh)		10.9		23.7				
LOS		B		C				
Approach Delay (s/veh)	--	--	23.7					
Approach LOS	--	--	C					

TWO-WAY STOP CONTROL SUMMARY

DK 35 EXP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	DEKALB/RIPPONDON
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES AND EXISTING GEOMETRY

East/West Street: DEKALB STREET | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		1282	23	62	958	
Peak-Hour Factor, PHF	0.79	0.94	0.44	0.80	0.90	0.25
Hourly Flow Rate, HFR (veh/h)	0	1363	52	77	1064	0
Percent Heavy Vehicles	8	--	--	26	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	32	1	99			
Peak-Hour Factor, PHF	0.72	0.25	0.78	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	44	4	126	0	0	0
Percent Heavy Vehicles	0	0	18	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L		LTR				
v (veh/h)		77		174				
C (m) (veh/h)		371		100				
v/c		0.21		1.74				
95% queue length		0.77		13.93				
Control Delay (s/veh)		17.2		444.0				
LOS		C		F				
Approach Delay (s/veh)	--	--	444.0					
Approach LOS	--	--	F					

TWO-WAY STOP CONTROL SUMMARY

DR35NRP

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	4/19/2012
Analysis Time Period	PM PEAK HOUR

Site Information

Intersection	DEKALB/RIPPONDON
Jurisdiction	SCDOT
Analysis Year	2035

Project Description: 2035 VOLUMES; ADD NBRTL

East/West Street: DEKALB STREET | North/South Street: RIPPONDON

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		1282	23	62	958	
Peak-Hour Factor, PHF	0.79	0.94	0.44	0.80	0.90	0.25
Hourly Flow Rate, HFR (veh/h)	0	1363	52	77	1064	0
Percent Heavy Vehicles	8	--	--	26	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	1	2	0
Configuration		T	TR	L	T	
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	32	1	99			
Peak-Hour Factor, PHF	0.72	0.25	0.78	0.25	0.85	0.91
Hourly Flow Rate, HFR (veh/h)	44	4	126	0	0	0
Percent Heavy Vehicles	0	0	18	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	1	0	0	0
Configuration	LT		R			

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		L	LT		R			
v (veh/h)		77	48		126			
C (m) (veh/h)		371	34		393			
v/c		0.21	1.41		0.32			
95% queue length		0.77	5.21		1.36			
Control Delay (s/veh)		17.2	478.9		18.4			
LOS		C	F		C			
Approach Delay (s/veh)	--	--	145.5					
Approach LOS	--	--	F					

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	DEKALB / RUTLEDGE
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	4/19/2012	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

DR35EXSA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		2	0	1	2		0	1	0			
Lane group		TR		L	T			LTR				
Volume, V (vph)		688	6	82	1305		1	1	72			
% Heavy vehicles, %HV			0	25	2		0	0	27			
Peak-hour factor, PHF		0.82	0.85	0.67	0.83		0.58	0.54	0.60			
Pretimed (P) or actuated (A)		A	A	A	A		A	A	A			
Start-up lost time, l_1		2.0		2.0	2.0			2.0				
Extension of effective green, e		2.0		2.0	2.0			2.0				
Arrival type, AT		3		3	3			3				
Unit extension, UE		3.0		3.0	3.0			3.0				
Filtering/metering, I		1.000		1.000	1.000			1.000				
Initial unmet demand, Q_b		0.0		0.0	0.0			0.0				
Ped / Bike / RTOR volumes	1	0	0	0	0		0	0	0	0	0	
Lane width		11.0		12.0	11.0			10.0				
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0			0				
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 12.0	G = 63.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 6	Y = 6	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		846		122	1572			124				
Lane group capacity, c		1618		322	2083			247				
v/c ratio, X		0.52		0.38	0.75			0.50				
Total green ratio, g/C		0.52		0.68	0.68			0.22				
Uniform delay, d_1		18.7		9.0	12.9			40.6				
Progression factor, PF		1.000		1.000	1.000			1.000				
I factor		1.000		1.000	1.000			1.000				
Delay calibration, k		0.13		0.11	0.31			0.11				
Incremental delay, d_2		0.3		0.7	1.6			1.6				
Initial queue delay, d_3		0.0		0.0	0.0			0.0				
Back of Queue		10.5		1.6	20.7			4.0				
Queue Storage Ratio												
Control delay		19.0		9.7	14.5			42.3				
Lane group LOS		B		A	B			D				
Approach delay	19.0			14.2			42.3					
Approach LOS	B			B			D					
Intersection delay	17.0			X_C = 0.69			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	DEKALB / RIPPLEMON
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	4/19/2012	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; ADD NBRTL

DR35NRA

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		2	0	1	2		0	1	1			
Lane group		TR		L	T			LT	R			
Volume, V (vph)		688	6	82	1305		1	1	72			
% Heavy vehicles, %HV			0	25	2		0	0	27			
Peak-hour factor, PHF		0.82	0.85	0.67	0.83		0.58	0.54	0.60			
Pretimed (P) or actuated (A)		A	A	A	A		A	A	A			
Start-up lost time, l_1		2.0		2.0	2.0			2.0	2.0			
Extension of effective green, e		2.0		2.0	2.0			2.0	2.0			
Arrival type, AT		3		3	3			3	3			
Unit extension, UE		3.0		3.0	3.0			3.0	3.0			
Filtering/metering, I		1.000		1.000	1.000			1.000	1.000			
Initial unmet demand, Q_b		0.0		0.0	0.0			0.0	0.0			
Ped / Bike / RTOR volumes	1	0	0	0	0		0	0	0	0	0	
Lane width		11.0		12.0	11.0			10.0	12.0			
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0			0	0			
Min. time for pedestrians, G_p		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 12.0	G = 63.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 6	Y = 6	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		846		122	1572			4	120			
Lane group capacity, c		1618		322	2083			350	429			
v/c ratio, X		0.52		0.38	0.75			0.01	0.28			
Total green ratio, g/C		0.52		0.68	0.68			0.22	0.38			
Uniform delay, d_1		18.7		9.0	12.9			36.1	26.2			
Progression factor, PF		1.000		1.000	1.000			1.000	1.000			
I factor		1.000		1.000	1.000			1.000	1.000			
Delay calibration, k		0.13		0.11	0.31			0.11	0.11			
Incremental delay, d_2		0.3		0.7	1.6			0.0	0.4			
Initial queue delay, d_3		0.0		0.0	0.0			0.0	0.0			
Back of Queue		10.5		1.6	20.7			0.1	3.0			
Queue Storage Ratio												
Control delay		19.0		9.7	14.5			36.1	26.5			
Lane group LOS		B		A	B			D	C			
Approach delay	19.0			14.2			26.9					
Approach LOS	B			B			C					
Intersection delay	16.3			X_C = 0.57			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	DEKALB/RUTLEDGE
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	4/19/2012	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2035 DR35EXP
		Project ID	2035 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		2	0	1	2		0	1	0			
Lane group		TR		L	T			LTR				
Volume, V (vph)		1282	23	62	958		32	1	99			
% Heavy vehicles, %HV			0	26	2		0	0	18			
Peak-hour factor, PHF		0.94	0.44	0.80	0.90		0.72	0.25	0.78			
Pretimed (P) or actuated (A)		A	A	A	A		A	A	A			
Start-up lost time, l_1		2.0		2.0	2.0			2.0				
Extension of effective green, e		2.0		2.0	2.0			2.0				
Arrival type, AT		3		3	3			3				
Unit extension, UE		3.0		3.0	3.0			3.0				
Filtering/metering, I		1.000		1.000	1.000			1.000				
Initial unmet demand, Q_b		0.0		0.0	0.0			0.0				
Ped / Bike / RTOR volumes	2	0	0	0	0		0	0	0	0	0	
Lane width		11.0		12.0	11.0			10.0				
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0			0				
Min. time for pedestrians, G_p		3.2			3.2			3.2			3.2	

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 12.0	G = 63.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 6	Y = 6	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		1416		77	1064			175				
Lane group capacity, c		1612		191	2083			283				
v/c ratio, X		0.88		0.40	0.51			0.62				
Total green ratio, g/C		0.52		0.68	0.68			0.22				
Uniform delay, d_1		25.1		16.3	9.7			41.9				
Progression factor, PF		1.000		1.000	1.000			1.000				
I factor		1.000		1.000	1.000			1.000				
Delay calibration, k		0.41		0.11	0.12			0.20				
Incremental delay, d_2		5.9		1.4	0.2			4.1				
Initial queue delay, d_3		0.0		0.0	0.0			0.0				
Back of Queue		25.9		1.1	10.1			5.8				
Queue Storage Ratio												
Control delay		31.0		17.7	9.9			45.9				
Lane group LOS		C		B	A			D				
Approach delay	31.0			10.4			45.9					
Approach LOS	C			B			D					
Intersection delay	23.4			X_C = 0.78			Intersection LOS			C		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	DEKALB / RIPPONDON
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	4/19/2012	Jurisdiction	SCDOT DR35NRSP
Time Period	PM PEAK HOUR	Analysis Year	2035
		Project ID	2035 VOLUMES; ADD NBRTL

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1		2	0	1	2		0	1	1			
Lane group		TR		L	T			LT	R			
Volume, V (vph)		1282	23	62	958		32	1	99			
% Heavy vehicles, %HV			0	26	2		0	0	18			
Peak-hour factor, PHF		0.94	0.44	0.80	0.90		0.72	0.25	0.78			
Pretimed (P) or actuated (A)		A	A	A	A		A	A	A			
Start-up lost time, l_1		2.0		2.0	2.0			2.0	2.0			
Extension of effective green, e		2.0		2.0	2.0			2.0	2.0			
Arrival type, AT		3		3	3			3	3			
Unit extension, UE		3.0		3.0	3.0			3.0	3.0			
Filtering/metering, I		1.000		1.000	1.000			1.000	1.000			
Initial unmet demand, Q_b		0.0		0.0	0.0			0.0	0.0			
Ped / Bike / RTOR volumes	2	0	0	0	0		0	0	0	0	0	
Lane width		11.0		12.0	11.0			10.0	12.0			
Parking / Grade / Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B		0		0	0			0	0			
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	WB Only	EW Perm	03	04	NB Only	06	07	08
Timing	G = 12.0	G = 63.0	G =	G =	G = 27.0	G =	G =	G =
	Y = 6	Y = 6	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 120.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		1416		77	1064			48	127			
Lane group capacity, c		1612		191	2083			343	462			
v/c ratio, X		0.88		0.40	0.51			0.14	0.27			
Total green ratio, g/C		0.52		0.68	0.68			0.22	0.38			
Uniform delay, d_1		25.1		16.3	9.7			37.2	26.1			
Progression factor, PF		1.000		1.000	1.000			1.000	1.000			
I factor		1.000		1.000	1.000			1.000	1.000			
Delay calibration, k		0.41		0.11	0.12			0.11	0.11			
Incremental delay, d_2		5.9		1.4	0.2			0.2	0.3			
Initial queue delay, d_3		0.0		0.0	0.0			0.0	0.0			
Back of Queue		25.9		1.1	10.1			1.4	3.1			
Queue Storage Ratio												
Control delay		31.0		17.7	9.9			37.4	26.5			
Lane group LOS		C		B	A			D	C			
Approach delay	31.0			10.4			29.5					
Approach LOS	C			B			C					
Intersection delay	22.3			X_C = 0.63			Intersection LOS			C		

AM PEAK HOUR

2010 - Existing Geometry
6: S-116-Rutledge St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	11	7	6	14	13	16	238	23	16	278	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.953			0.947			0.988			0.995	
Flt Protected		0.994			0.990			0.997			0.997	
Satd. Flow (prot)	0	1458	0	0	1443	0	0	2989	0	0	3007	0
Flt Permitted		0.947			0.926			0.927			0.931	
Satd. Flow (perm)	0	1389	0	0	1350	0	0	2779	0	0	2808	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			14			20			8	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	3	12	8	7	15	14	18	262	25	18	305	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	36	0	0	305	0	0	335	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.22	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	65.0	65.0	0.0	65.0	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	27.8%	0.0%	72.2%	72.2%	0.0%	72.2%	72.2%	0.0%
Maximum Green (s)	18.5	18.5		18.5	18.5		57.7	57.7		57.7	57.7	

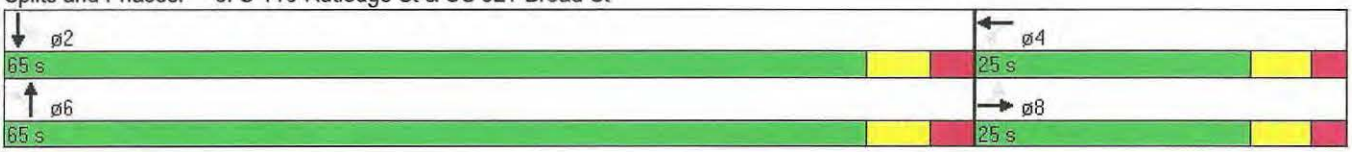
AM PEAK HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		7.2			7.2			76.7			76.7	
Actuated g/C Ratio		0.08			0.08			0.85			0.85	
v/c Ratio		0.19			0.30			0.13			0.14	
Control Delay		32.4			33.2			1.6			0.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		32.4			33.2			1.6			0.2	
LOS		C			C			A			A	
Approach Delay		32.4			33.2			1.6			0.2	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 3.6 Intersection LOS: A
Intersection Capacity Utilization 37.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



AM PEAK HOUR

2010 - Streetscape Geometry
6: S-116-Rutledge St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	3	11	7	6	14	13	16	238	23	16	278	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.953			0.947			0.987			0.994	
Flt Protected		0.994			0.990		0.950			0.950		
Satd. Flow (prot)	0	1458	0	0	1443	0	1624	1492	0	1624	1501	0
Flt Permitted		0.947			0.926		0.568			0.584		
Satd. Flow (perm)	0	1389	0	0	1350	0	971	1492	0	999	1501	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			14			11			4	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	3	12	8	7	15	14	18	262	25	18	305	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	23	0	0	36	0	18	287	0	18	317	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	65.0	65.0	0.0	65.0	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	27.8%	0.0%	72.2%	72.2%	0.0%	72.2%	72.2%	0.0%
Maximum Green (s)	18.5	18.5		18.5	18.5		57.7	57.7		57.7	57.7	

AM PEAK HOUR

2010 - Streetscape Geometry
6: S-116-Rutledge St & US 521-Broad St

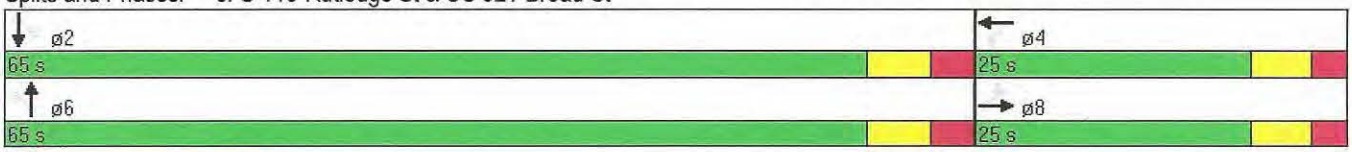
11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		7.2			7.2		77.9	76.7		77.9	76.7	
Actuated g/C Ratio		0.08			0.08		0.87	0.85		0.87	0.85	
v/c Ratio		0.19			0.30		0.02	0.23		0.02	0.25	
Control Delay		32.4			33.2		1.9	2.2		0.1	1.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		32.4			33.2		1.9	2.2		0.1	1.0	
LOS		C			C		A	A		A	A	
Approach Delay		32.4			33.2			2.2			1.0	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.30
Intersection Signal Delay: 4.2 Intersection LOS: A
Intersection Capacity Utilization 31.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



AM PEAK HOUR

2035 - Existing Geometry
6: S-116-Rutledge St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	16	10	9	20	19	23	345	33	23	403	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.955			0.947			0.988			0.994	
Flt Protected		0.994			0.991			0.997			0.997	
Satd. Flow (prot)	0	1461	0	0	1444	0	0	2989	0	0	3004	0
Flt Permitted		0.948			0.926			0.912			0.919	
Satd. Flow (perm)	0	1393	0	0	1350	0	0	2734	0	0	2769	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			21			20			8	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	4	18	11	10	22	21	25	379	36	25	443	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	53	0	0	440	0	0	486	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.22	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	65.0	65.0	0.0	65.0	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	27.8%	0.0%	72.2%	72.2%	0.0%	72.2%	72.2%	0.0%
Maximum Green (s)	18.5	18.5		18.5	18.5		57.7	57.7		57.7	57.7	

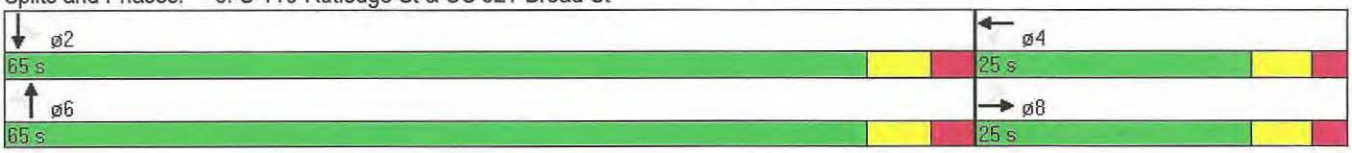
AM PEAK HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		7.8			7.9			76.2			76.2	
Actuated g/C Ratio		0.09			0.09			0.85			0.85	
v/c Ratio		0.25			0.39			0.19			0.21	
Control Delay		32.6			34.0			2.1			1.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		32.6			34.0			2.1			1.0	
LOS		C			C			A			A	
Approach Delay		32.6			34.0			2.1			1.0	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 4.2 Intersection LOS: A
Intersection Capacity Utilization 48.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



AM PEAK HOUR

2035 -Streetscape Geometry
6: S-116-Rutledge St & US 521-Broad St

11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	16	10	9	20	19	23	345	33	23	403	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.947			0.987			0.994	
Flt Protected		0.994			0.991		0.950			0.950		
Satd. Flow (prot)	0	1461	0	0	1444	0	1624	1492	0	1624	1501	0
Flt Permitted		0.948			0.926		0.498			0.519		
Satd. Flow (perm)	0	1393	0	0	1350	0	852	1492	0	887	1501	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			21			11			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	4	18	11	10	22	21	25	379	36	25	443	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	33	0	0	53	0	25	415	0	25	461	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	65.0	65.0	0.0	65.0	65.0	0.0
Total Split (%)	27.8%	27.8%	0.0%	27.8%	27.8%	0.0%	72.2%	72.2%	0.0%	72.2%	72.2%	0.0%
Maximum Green (s)	18.5	18.5		18.5	18.5		57.7	57.7		57.7	57.7	

AM PEAK HOUR

2035 -Streetscape Geometry
6: S-116-Rutledge St & US 521-Broad St

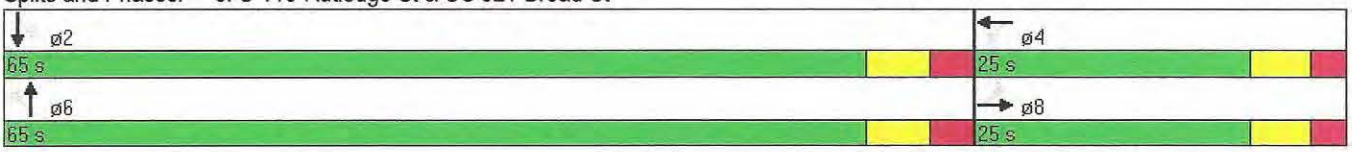
11/5/2011

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		7.8			7.9		77.4	76.2		77.4	76.2	
Actuated g/C Ratio		0.09			0.09		0.86	0.85		0.86	0.85	
v/c Ratio		0.25			0.39		0.03	0.33		0.03	0.36	
Control Delay		32.6			34.0		3.2	4.0		2.0	3.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		32.6			34.0		3.2	4.0		2.0	3.6	
LOS		C			C		A	A		A	A	
Approach Delay		32.6			34.0			4.0			3.6	
Approach LOS		C			C			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 6.3 Intersection LOS: A
Intersection Capacity Utilization 40.7% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



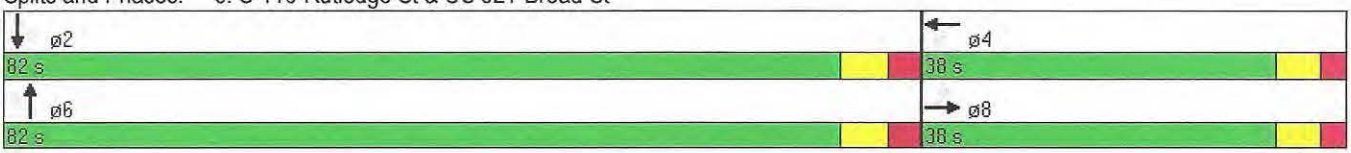
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↕			↕	
Volume (vph)	16	32	24	31	31	42	17	271	36	33	253	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.956			0.946			0.983			0.993	
Flt Protected		0.989			0.985			0.997			0.995	
Satd. Flow (prot)	0	1455	0	0	1434	0	0	2975	0	0	2999	0
Flt Permitted		0.872			0.882			0.926			0.877	
Satd. Flow (perm)	0	1283	0	0	1284	0	0	2763	0	0	2643	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			28			21			8	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	18	35	26	34	34	46	19	298	40	36	278	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	114	0	0	357	0	0	329	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.22	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	82.0	82.0	0.0	82.0	82.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	31.7%	31.7%	0.0%	68.3%	68.3%	0.0%	68.3%	68.3%	0.0%
Maximum Green (s)	31.5	31.5		31.5	31.5		74.7	74.7		74.7	74.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		13.5			13.5			92.7			92.7	
Actuated g/C Ratio		0.11			0.11			0.77			0.77	
v/c Ratio		0.49			0.67			0.17			0.16	
Control Delay		46.2			56.7			8.0			0.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		46.2			56.7			8.0			0.2	
LOS		D			E			A			A	
Approach Delay		46.2			56.7			8.0			0.2	
Approach LOS		D			E			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 82 (68%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 14.8 Intersection LOS: B
Intersection Capacity Utilization 46.9% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



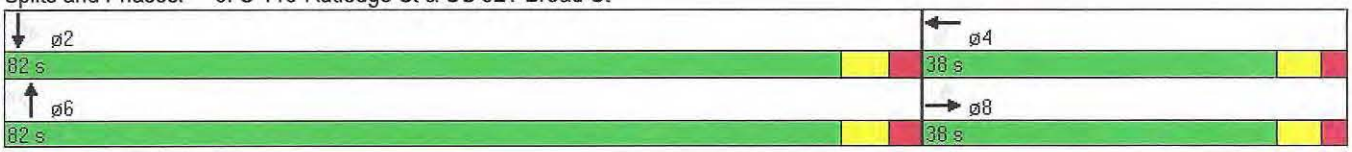
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	32	24	31	31	42	17	271	36	33	253	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956			0.946			0.982			0.992	
Flt Protected		0.989			0.985		0.950			0.950		
Satd. Flow (prot)	0	1455	0	0	1434	0	1624	1485	0	1624	1498	0
Flt Permitted		0.872			0.882		0.581			0.557		
Satd. Flow (perm)	0	1283	0	0	1284	0	994	1485	0	952	1498	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			28			11			4	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	18	35	26	34	34	46	19	298	40	36	278	15
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	79	0	0	114	0	19	338	0	36	293	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	82.0	82.0	0.0	82.0	82.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	31.7%	31.7%	0.0%	68.3%	68.3%	0.0%	68.3%	68.3%	0.0%
Maximum Green (s)	31.5	31.5		31.5	31.5		74.7	74.7		74.7	74.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		13.5			13.5		94.7	92.7		94.7	92.7	
Actuated g/C Ratio		0.11			0.11		0.79	0.77		0.79	0.77	
v/c Ratio		0.49			0.67		0.02	0.29		0.05	0.25	
Control Delay		46.2			56.7		5.9	9.3		0.9	1.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		46.2			56.7		5.9	9.3		0.9	1.0	
LOS		D			E		A	A		A	A	
Approach Delay		46.2			56.7			9.1			1.0	
Approach LOS		D			E			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34.8 (29%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 15.6 Intersection LOS: B
Intersection Capacity Utilization 47.4% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



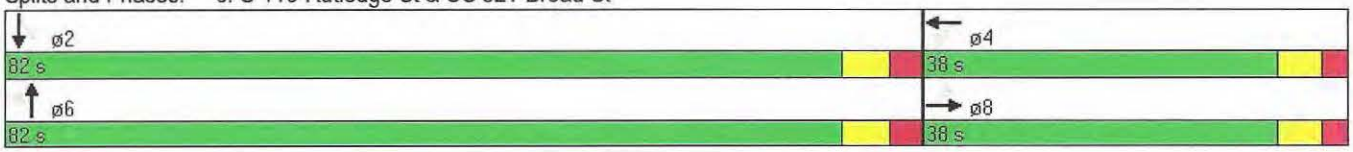
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	46	35	45	45	61	25	393	52	48	367	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.955			0.945			0.983			0.993	
Flt Protected		0.989			0.985			0.997			0.994	
Satd. Flow (prot)	0	1454	0	0	1433	0	0	2975	0	0	2996	0
Flt Permitted		0.855			0.831			0.909			0.833	
Satd. Flow (perm)	0	1257	0	0	1209	0	0	2713	0	0	2511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			28			21			8	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	25	51	38	49	49	67	27	432	57	53	403	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	165	0	0	516	0	0	478	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.22	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	82.0	82.0	0.0	82.0	82.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	31.7%	31.7%	0.0%	68.3%	68.3%	0.0%	68.3%	68.3%	0.0%
Maximum Green (s)	31.5	31.5		31.5	31.5		74.7	74.7		74.7	74.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		18.5			18.5			87.7			87.7	
Actuated g/C Ratio		0.15			0.15			0.73			0.73	
v/c Ratio		0.54			0.79			0.26			0.26	
Control Delay		46.4			64.2			5.0			1.8	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		46.4			64.2			5.0			1.8	
LOS		D			E			A			A	
Approach Delay		46.4			64.2			5.0			1.8	
Approach LOS		D			E			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 82 (68%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 60.2% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



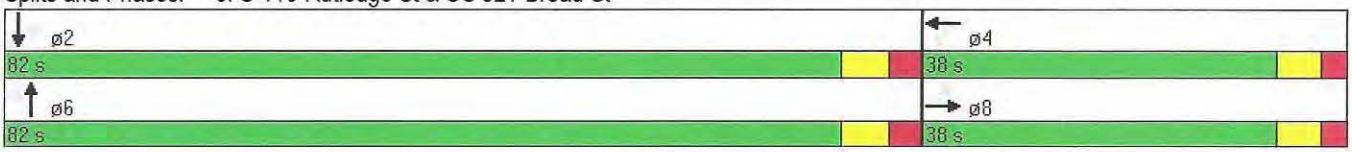
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	46	35	45	45	61	25	393	52	48	367	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.945			0.983			0.992	
Flt Protected		0.989			0.985		0.950			0.950		
Satd. Flow (prot)	0	1454	0	0	1433	0	1624	1487	0	1624	1498	0
Flt Permitted		0.855			0.831		0.499			0.459		
Satd. Flow (perm)	0	1257	0	0	1209	0	853	1487	0	785	1498	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			28			10			4	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		285			356			1272			641	
Travel Time (s)		6.5			8.1			34.7			17.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	25	51	38	49	49	67	27	432	57	53	403	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	114	0	0	165	0	27	489	0	53	425	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.5	22.5		22.5	22.5		23.6	23.6		23.6	23.6	
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	82.0	82.0	0.0	82.0	82.0	0.0
Total Split (%)	31.7%	31.7%	0.0%	31.7%	31.7%	0.0%	68.3%	68.3%	0.0%	68.3%	68.3%	0.0%
Maximum Green (s)	31.5	31.5		31.5	31.5		74.7	74.7		74.7	74.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Yellow Time (s)	4.0	4.0		4.0	4.0		4.3	4.3		4.3	4.3	
All-Red Time (s)	2.5	2.5		2.5	2.5		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.0	4.5	6.5	4.0	5.3	7.3	4.0	5.3	7.3	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		18.5			18.5		89.7	87.7		89.7	87.7	
Actuated g/C Ratio		0.15			0.15		0.75	0.73		0.75	0.73	
v/c Ratio		0.54			0.79		0.04	0.45		0.09	0.39	
Control Delay		46.4			64.2		1.1	3.6		5.2	5.3	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		46.4			64.2		1.1	3.6		5.2	5.3	
LOS		D			E		A	A		A	A	
Approach Delay		46.4			64.2			3.5			5.3	
Approach LOS		D			E			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34.8 (29%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 15.9 Intersection LOS: B
Intersection Capacity Utilization 60.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: S-116-Rutledge St & US 521-Broad St



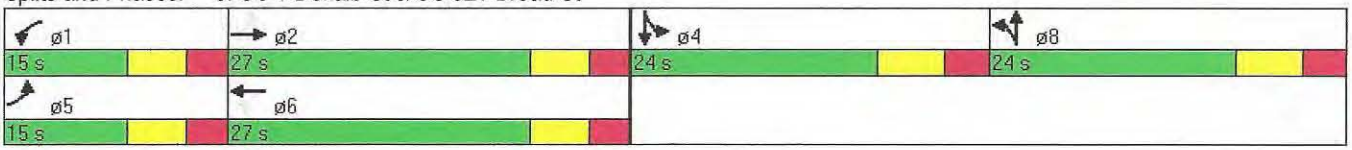
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	21	124	630	92	43	137	79	47	164	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.994			0.981			0.954			0.975	
Flt Protected	0.950			0.950				0.992			0.991	
Satd. Flow (prot)	1624	3038	0	1593	2972	0	0	2864	0	0	3093	0
Flt Permitted	0.260			0.327				0.992			0.991	
Satd. Flow (perm)	445	3038	0	548	2972	0	0	2864	0	0	3093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			17			67			22	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	68	539	22	132	670	98	46	146	84	50	174	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	561	0	132	768	0	0	276	0	0	268	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		16.5	16.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	35.5	28.1		39.6	32.0			12.0			12.5	
Actuated g/C Ratio	0.39	0.31		0.44	0.36			0.13			0.14	
v/c Ratio	0.25	0.59		0.38	0.72			0.63			0.60	
Control Delay	17.5	31.2		18.5	32.9			27.8			38.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	17.5	31.2		18.5	32.9			27.8			38.7	
LOS	B	C		B	C			C			D	
Approach Delay		29.7			30.8			27.8			38.7	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 31.1 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



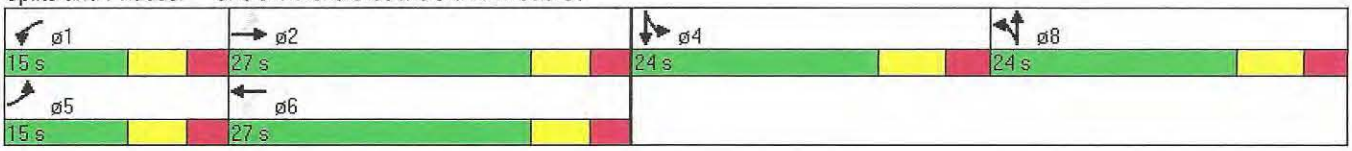
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	21	124	630	92	43	137	79	47	164	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.981			0.945			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3038	0	1593	2972	0	1593	1426	0	1608	1633	0
Flt Permitted	0.199			0.297			0.950			0.950		
Satd. Flow (perm)	340	3038	0	498	2972	0	1593	1426	0	1608	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			17			28			12	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	68	539	22	132	670	98	46	146	84	50	174	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	561	0	132	768	0	46	230	0	50	218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		16.5	16.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	30.3	23.0		32.8	26.2		18.5	15.5		17.9	14.9	
Actuated g/C Ratio	0.34	0.26		0.36	0.29		0.21	0.17		0.20	0.17	
v/c Ratio	0.31	0.72		0.47	0.88		0.14	0.86		0.16	0.78	
Control Delay	21.6	37.8		24.3	46.1		22.5	54.8		30.3	53.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.6	37.8		24.3	46.1		22.5	54.8		30.3	53.5	
LOS	C	D		C	D		C	D		C	D	
Approach Delay		36.0			42.9			49.4			49.2	
Approach LOS		D			D			D			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 42.5 Intersection LOS: D
Intersection Capacity Utilization 64.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



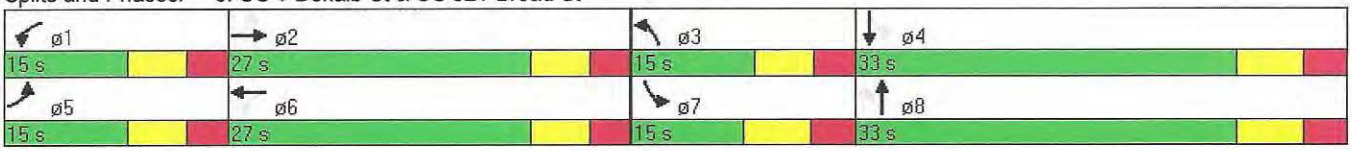
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	21	124	630	92	43	137	79	47	164	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.981			0.945			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3038	0	1593	2972	0	1593	1426	0	1608	1633	0
Flt Permitted	0.275			0.342			0.570			0.510		
Satd. Flow (perm)	470	3038	0	573	2972	0	956	1426	0	863	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			17			32			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	68	539	22	132	670	98	46	146	84	50	174	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	561	0	132	768	0	46	230	0	50	218	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.3	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		10.8	24.0		10.8	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	15.0	33.0	0.0	15.0	33.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	16.7%	36.7%	0.0%	16.7%	36.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		8.2	25.5		7.5	25.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		2.8	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	3.8	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	40.6	33.4		44.6	37.3		28.1	17.9		27.5	18.2	
Actuated g/C Ratio	0.45	0.37		0.50	0.41		0.31	0.20		0.31	0.20	
v/c Ratio	0.22	0.50		0.35	0.62		0.12	0.74		0.14	0.64	
Control Delay	16.8	27.7		17.2	29.0		12.3	36.5		17.0	38.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.8	27.7		17.2	29.0		12.3	36.5		17.0	38.4	
LOS	B	C		B	C		B	D		B	D	
Approach Delay		26.5			27.3			32.5			34.4	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 28.7 Intersection LOS: C
Intersection Capacity Utilization 64.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



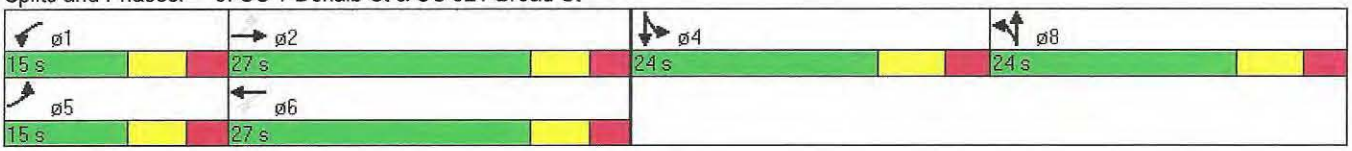
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	736	30	180	914	133	62	199	115	68	238	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.994			0.981			0.954			0.976	
Flt Protected	0.950			0.950				0.992			0.991	
Satd. Flow (prot)	1624	3038	0	1593	2972	0	0	2864	0	0	2942	0
Flt Permitted	0.182			0.160				0.992			0.991	
Satd. Flow (perm)	311	3038	0	268	2972	0	0	2864	0	0	2942	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			16			67			22	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	99	783	32	191	972	141	66	212	122	72	253	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	815	0	191	1113	0	0	400	0	0	388	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		16.5	16.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	29.8	22.0		34.0	26.4			14.7			15.1	
Actuated g/C Ratio	0.33	0.24		0.38	0.29			0.16			0.17	
v/c Ratio	0.46	1.09		0.79	1.26			0.76			0.76	
Control Delay	24.8	95.3		46.5	157.6			35.7			43.8	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	24.8	95.3		46.5	157.6			35.7			43.8	
LOS	C	F		D	F			D			D	
Approach Delay		87.6			141.4			35.7			43.8	
Approach LOS		F			F			D			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 105
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.26
Intersection Signal Delay: 98.4 Intersection LOS: F
Intersection Capacity Utilization 86.1% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



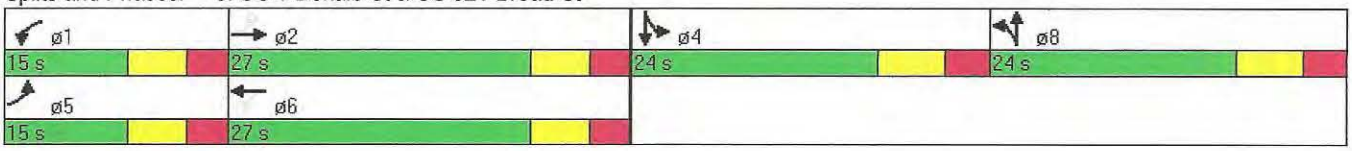
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	736	30	180	914	133	62	199	115	68	238	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.981			0.945			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3038	0	1593	2972	0	1593	1426	0	1608	1469	0
Flt Permitted	0.198			0.183			0.950			0.950		
Satd. Flow (perm)	339	3038	0	307	2972	0	1593	1426	0	1608	1469	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			16			28			12	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	99	783	32	191	972	141	66	212	122	72	253	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	815	0	191	1113	0	66	334	0	72	316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		16.5	16.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	27.9	20.2		29.8	23.3		19.5	16.5		19.5	16.5	
Actuated g/C Ratio	0.31	0.22		0.33	0.26		0.22	0.18		0.22	0.18	
v/c Ratio	0.46	1.19		0.87	1.43		0.19	1.18		0.21	1.13	
Control Delay	25.5	132.4		59.6	228.4		35.5	143.4		30.8	129.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.5	132.4		59.6	228.4		35.5	143.4		30.8	129.4	
LOS	C	F		E	F		D	F		C	F	
Approach Delay		120.9			203.7			125.6			111.1	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.43
Intersection Signal Delay: 156.1 Intersection LOS: F
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



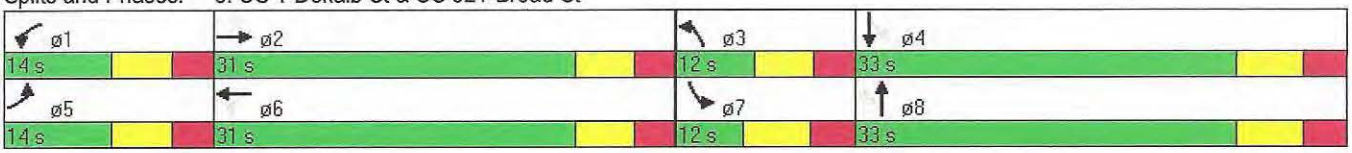
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	736	30	180	914	133	62	199	115	68	238	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.981			0.945			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3038	0	1593	2972	0	1593	1426	0	1608	1469	0
Flt Permitted	0.153			0.154			0.421			0.389		
Satd. Flow (perm)	262	3038	0	258	2972	0	706	1426	0	659	1469	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			17			32			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0		0	0
Adj. Flow (vph)	99	783	32	191	972	141	66	212	122	72	253	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	815	0	191	1113	0	66	334	0	72	316	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.30	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.3	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		10.8	24.0		10.8	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	31.0	0.0	14.0	31.0	0.0	12.0	33.0	0.0	12.0	33.0	0.0
Total Split (%)	15.6%	34.4%	0.0%	15.6%	34.4%	0.0%	13.3%	36.7%	0.0%	13.3%	36.7%	0.0%
Maximum Green (s)	7.2	24.2		7.2	24.2		5.2	25.5		4.5	25.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		2.8	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	3.8	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	34.7	27.7		38.6	32.0		33.0	22.8		31.8	22.8	
Actuated g/C Ratio	0.39	0.31		0.43	0.36		0.37	0.25		0.35	0.25	
v/c Ratio	0.48	0.87		0.79	1.04		0.19	0.87		0.23	0.83	
Control Delay	23.8	42.9		45.5	72.6		19.3	58.0		16.8	48.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.8	42.9		45.5	72.6		19.3	58.0		16.8	48.8	
LOS	C	D		D	E		B	E		B	D	
Approach Delay		40.9			68.7			51.7			42.9	
Approach LOS		D			E			D			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 54.6 Intersection LOS: D
Intersection Capacity Utilization 83.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	827	57	134	672	105	74	276	133	115	211	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.990			0.980			0.959			0.974	
Flt Protected	0.950			0.950				0.992			0.986	
Satd. Flow (prot)	1624	3025	0	1593	2969	0	0	2879	0	0	3078	0
Flt Permitted	0.220			0.103				0.992			0.986	
Satd. Flow (perm)	376	3025	0	173	2969	0	0	2879	0	0	3078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17			39			18	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	81	919	63	149	747	117	82	307	148	128	234	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	982	0	149	864	0	0	537	0	0	438	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	22.5%	22.5%	0.0%	22.5%	22.5%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.1	41.1		56.1	47.2			20.8			18.9	
Actuated g/C Ratio	0.40	0.34		0.47	0.39			0.17			0.16	
v/c Ratio	0.36	0.94		0.73	0.73			1.01			0.88	
Control Delay	21.7	55.7		42.5	35.5			91.3			66.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	21.7	55.7		42.5	35.5			91.3			66.5	
LOS	C	E		D	D			F			E	
Approach Delay		53.1			36.5			91.3			66.5	
Approach LOS		D			D			F			E	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 56.2 Intersection LOS: E
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St

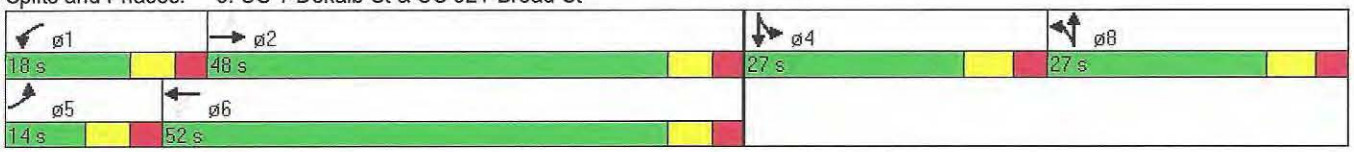
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	827	57	134	672	105	74	276	133	115	211	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.951			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3025	0	1593	2969	0	1593	1435	0	1608	1622	0
Flt Permitted	0.220			0.103			0.950			0.950		
Satd. Flow (perm)	376	3025	0	173	2969	0	1593	1435	0	1608	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17			17			12	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	81	919	63	149	747	117	82	307	148	128	234	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	982	0	149	864	0	82	455	0	128	310	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	22.5%	22.5%	0.0%	22.5%	22.5%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.1	41.1		56.1	47.2		22.5	19.5		23.3	20.3	
Actuated g/C Ratio	0.40	0.34		0.47	0.39		0.19	0.16		0.19	0.17	
v/c Ratio	0.36	0.94		0.73	0.73		0.27	1.84		0.41	1.09	
Control Delay	21.7	55.7		42.5	35.5		45.8	423.2		47.5	125.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.7	55.7		42.5	35.5		45.8	423.2		47.5	125.0	
LOS	C	E		D	D		D	F		D	F	
Approach Delay		53.1			36.5			365.6			102.3	
Approach LOS		D			D			F			F	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.84
Intersection Signal Delay: 109.7 Intersection LOS: F
Intersection Capacity Utilization 89.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



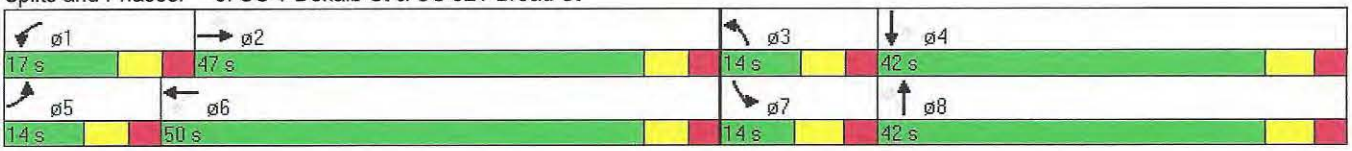
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	827	57	134	672	105	74	276	133	115	211	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.951			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3025	0	1593	2969	0	1593	1435	0	1608	1622	0
Flt Permitted	0.200			0.093			0.453			0.222		
Satd. Flow (perm)	342	3025	0	156	2969	0	759	1435	0	376	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			16			20			14	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	81	919	63	149	747	117	82	307	148	128	234	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	982	0	149	864	0	82	455	0	128	310	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.3	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		10.8	24.0		10.8	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	47.0	0.0	17.0	50.0	0.0	14.0	42.0	0.0	14.0	42.0	0.0
Total Split (%)	11.7%	39.2%	0.0%	14.2%	41.7%	0.0%	11.7%	35.0%	0.0%	11.7%	35.0%	0.0%
Maximum Green (s)	7.2	40.2		10.2	43.2		7.2	34.5		6.5	34.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		2.8	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	3.8	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	47.3	40.3		54.0	45.8		48.2	34.5		48.1	37.5	
Actuated g/C Ratio	0.39	0.34		0.45	0.38		0.40	0.29		0.40	0.31	
v/c Ratio	0.39	0.96		0.79	0.76		0.22	1.07		0.51	0.60	
Control Delay	23.5	60.0		53.3	37.6		20.7	103.0		29.1	40.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.5	60.0		53.3	37.6		20.7	103.0		29.1	40.3	
LOS	C	E		D	D		C	F		C	D	
Approach Delay		57.2			39.9			90.4			37.0	
Approach LOS		E			D			F			D	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 54.4 Intersection LOS: D
Intersection Capacity Utilization 89.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	1199	83	194	974	152	107	400	193	167	306	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.990			0.980			0.959			0.974	
Flt Protected	0.950			0.950				0.992			0.986	
Satd. Flow (prot)	1624	3025	0	1593	2969	0	0	2879	0	0	3078	0
Flt Permitted	0.097			0.088				0.992			0.986	
Satd. Flow (perm)	166	3025	0	148	2969	0	0	2879	0	0	3078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17			39			18	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	118	1332	92	216	1082	169	119	444	214	186	340	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1424	0	216	1251	0	0	777	0	0	636	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	22.5%	22.5%	0.0%	22.5%	22.5%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.4	41.2		56.4	45.2			19.5			19.5	
Actuated g/C Ratio	0.40	0.34		0.47	0.38			0.16			0.16	
v/c Ratio	0.77	1.37		1.06	1.11			1.55			1.23	
Control Delay	53.8	203.4		110.5	96.9			291.2			162.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	53.8	203.4		110.5	96.9			291.2			162.7	
LOS	D	F		F	F			F			F	
Approach Delay		191.9			98.9			291.2			162.7	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.55
Intersection Signal Delay: 174.3 Intersection LOS: F
Intersection Capacity Utilization 116.4% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	1199	83	194	974	152	107	400	193	167	306	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.951			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3025	0	1593	2969	0	1593	1435	0	1608	1622	0
Flt Permitted	0.097			0.088			0.950			0.950		
Satd. Flow (perm)	166	3025	0	148	2969	0	1593	1435	0	1608	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17			17			12	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	118	1332	92	216	1082	169	119	444	214	186	340	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1424	0	216	1251	0	119	658	0	186	450	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	22.5%	22.5%	0.0%	22.5%	22.5%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.4	41.2		56.4	45.2		22.5	19.5		22.5	19.5	
Actuated g/C Ratio	0.40	0.34		0.47	0.38		0.19	0.16		0.19	0.16	
v/c Ratio	0.77	1.37		1.06	1.11		0.40	2.66		0.62	1.64	
Control Delay	53.8	203.4		110.5	96.9		39.9	779.7		54.7	337.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.8	203.4		110.5	96.9		39.9	779.7		54.7	337.1	
LOS	D	F		F	F		D	F		D	F	
Approach Delay		191.9			98.9			666.4			254.5	
Approach LOS		F			F			F			F	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.66
Intersection Signal Delay: 253.4 Intersection LOS: F
Intersection Capacity Utilization 119.8% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St

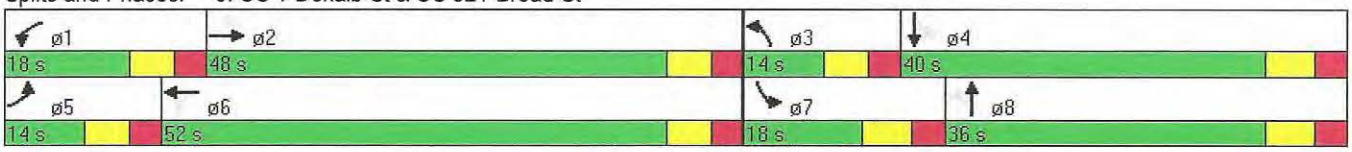
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	1199	83	194	974	152	107	400	193	167	306	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980			0.951			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3025	0	1593	2969	0	1593	1435	0	1608	1622	0
Flt Permitted	0.097			0.088			0.221			0.113		
Satd. Flow (perm)	166	3025	0	148	2969	0	371	1435	0	191	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17			19			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	118	1332	92	216	1082	169	119	444	214	186	340	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1424	0	216	1251	0	119	658	0	186	450	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		3.3	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		10.8	24.0		10.8	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	14.0	36.0	0.0	18.0	40.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	11.7%	30.0%	0.0%	15.0%	33.3%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		7.2	28.5		10.5	32.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		2.8	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	3.8	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	48.4	41.2		56.4	45.2		42.4	28.5		49.0	32.5	
Actuated g/C Ratio	0.40	0.34		0.47	0.38		0.35	0.24		0.41	0.27	
v/c Ratio	0.77	1.37		1.06	1.11		0.51	1.85		0.78	1.00	
Control Delay	53.8	203.4		110.5	96.9		25.8	420.2		50.6	86.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.8	203.4		110.5	96.9		25.8	420.2		50.6	86.0	
LOS	D	F		F	F		C	F		D	F	
Approach Delay		191.9			98.9			359.8			75.6	
Approach LOS		F			F			F			E	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.85
Intersection Signal Delay: 173.8 Intersection LOS: F
Intersection Capacity Utilization 119.8% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	1199	83	194	974	152	107	400	193	167	306	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.990			0.980				0.850		0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1624	3025	0	1593	2969	0	1593	1509	1282	1608	1622	0
Flt Permitted	0.097			0.088			0.221			0.129		
Satd. Flow (perm)	166	3025	0	148	2969	0	371	1509	1282	218	1622	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17				174		13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	118	1332	92	216	1082	169	119	444	214	186	340	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	1424	0	216	1251	0	119	444	214	186	450	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.30	1.30	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1	1	1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50	50	50	50	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	50	50		50	50		50	50	50	50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Turn Type	pm+pt			pm+pt			pm+pt		Perm	pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8		8	4		
Detector Phase	5	2		1	6		3	8	8	7	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	3.3	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		10.8	24.0	24.0	10.8	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	14.0	36.0	36.0	18.0	40.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	11.7%	30.0%	30.0%	15.0%	33.3%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		7.2	28.5	28.5	10.5	32.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.5	4.5	4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		2.8	3.0	3.0	3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	3.8	7.5	7.5	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None	None	None	None	
Walk Time (s)		5.0			5.0			5.0	5.0		5.0	
Flash Dont Walk (s)		11.0			11.0			11.0	11.0		11.0	
Pedestrian Calls (#/hr)		0			0			0	0		0	
Act Effct Green (s)	48.4	41.2		56.4	45.2		42.4	28.5	28.5	49.0	32.5	
Actuated g/C Ratio	0.40	0.34		0.47	0.38		0.35	0.24	0.24	0.41	0.27	
v/c Ratio	0.77	1.37		1.06	1.11		0.51	1.24	0.49	0.76	1.00	
Control Delay	53.8	203.4		110.5	96.9		25.8	163.9	9.9	46.1	86.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	53.8	203.4		110.5	96.9		25.8	163.9	9.9	46.1	86.0	
LOS	D	F		F	F		C	F	A	D	F	
Approach Delay		191.9			98.9			100.3			74.3	
Approach LOS		F			F			F			E	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.37
Intersection Signal Delay: 128.0 Intersection LOS: F
Intersection Capacity Utilization 106.7% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St

Intersection: 5: US 1-Dekalb St & US 521-Broad St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	224	365	382	224	852	819	179	338	89	268
Average Queue (ft)	55	199	217	129	416	436	44	166	41	143
95th Queue (ft)	137	311	324	237	812	809	112	284	77	233
Link Distance (ft)		1191	1191		1213	1213	565	565	1861	1861
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	200			200						
Storage Blk Time (%)		9		2	28					
Queuing Penalty (veh)		8		10	50					

Intersection: 6: S-116-Rutledge St & US 521-Broad St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	59	72	38	200	52	193
Average Queue (ft)	23	27	10	56	12	85
95th Queue (ft)	49	54	34	147	39	168
Link Distance (ft)	237	308	1209	1209	565	565
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: S-45-York St & US 521-Broad St

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	76	290	125	330	188	436	39	342
Average Queue (ft)	13	129	74	162	32	195	8	167
95th Queue (ft)	48	236	133	282	102	360	31	299
Link Distance (ft)		511		747	709	709	1209	1209
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100					
Storage Blk Time (%)	0	16	5	19				
Queuing Penalty (veh)	0	3	16	18				

Network Summary

Network wide Queuing Penalty: 105

Intersection: 5: US 1-Dekalb St & US 521-Broad St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	L	T	R	L	TR
Maximum Queue (ft)	224	1226	1219	225	702	720	550	572	505	637	722
Average Queue (ft)	126	1137	1141	158	437	462	170	438	195	303	448
95th Queue (ft)	266	1413	1402	258	684	706	445	606	457	704	785
Link Distance (ft)		1191	1191		1201	1201	565	565	565	1861	1861
Upstream Blk Time (%)		41	40				0	2	0		
Queuing Penalty (veh)		0	0				0	3	1		
Storage Bay Dist (ft)	200			200							
Storage Blk Time (%)	7	59		8	30						
Queuing Penalty (veh)	44	63		40	58						

Intersection: 6: S-116-Rutledge St & US 521-Broad St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	TR	L	TR
Maximum Queue (ft)	101	170	38	251	75	225
Average Queue (ft)	47	76	13	117	28	105
95th Queue (ft)	90	147	38	233	63	193
Link Distance (ft)	237	292	1209	1209	565	565
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: S-45-York St & US 521-Broad St

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	124	368	125	580	662	718	53	451
Average Queue (ft)	19	169	110	254	96	373	18	238
95th Queue (ft)	70	299	147	494	416	681	50	398
Link Distance (ft)		511		747	709	709	1209	1209
Upstream Blk Time (%)					0	1		
Queuing Penalty (veh)					0	0		
Storage Bay Dist (ft)	100		100					
Storage Blk Time (%)		23	27	14				
Queuing Penalty (veh)		5	57	26				

Network Summary

Network wide Queuing Penalty: 296

Intersection: 5: US 1-Dekalb St & US 521-Broad St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LT	TR	LT	TR
Maximum Queue (ft)	224	1212	1215	224	697	710	594	576	1243	1251
Average Queue (ft)	99	1142	1144	152	431	458	453	468	785	788
95th Queue (ft)	212	1402	1395	249	665	683	574	580	1297	1292
Link Distance (ft)		1197	1197		1208	1208	567	567	1861	1861
Upstream Blk Time (%)		34	34				1	2		
Queuing Penalty (veh)		0	0				3	4		
Storage Bay Dist (ft)	200			200						
Storage Blk Time (%)	2	59		5	31					
Queuing Penalty (veh)	9	63		24	61					

Intersection: 6: S-116-Rutledge St & US 521-Broad St

Movement	EB	WB	NB	NB	SB	SB
Directions Served	LTR	LTR	LT	TR	LT	TR
Maximum Queue (ft)	133	209	175	202	73	74
Average Queue (ft)	52	77	68	74	24	28
95th Queue (ft)	102	152	138	154	60	63
Link Distance (ft)	245	316	1210	1210	567	567
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 7: S-45-York St & US 521-Broad St

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	LT	TR
Maximum Queue (ft)	125	342	125	504	247	277	217	224
Average Queue (ft)	20	152	109	221	137	160	83	103
95th Queue (ft)	77	286	147	432	225	255	155	181
Link Distance (ft)		505		753	709	709	1210	1210
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	100		100					
Storage Blk Time (%)		22	27	16				
Queuing Penalty (veh)		5	57	29				

Network Summary

Network wide Queuing Penalty: 254

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / CHESTNUT FERRY
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	AM PEAK HOUR	Analysis Year	2010 / CF DTEXA
		Project ID	2010 DETOUR VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	1	1	2	0	1	1	0	0	1	0
Lane group	L	T	R	L	TR		L	LTR			LTR	
Volume, V (vph)	1	879	1	10	810	1	58	1	11	1	1	1
% Heavy vehicles, %HV	0		2	0	1	0	2	0	1	0	0	0
Peak-hour factor, PHF	0.25	0.93	0.80	0.51	0.87	0.25	0.72	0.25	0.81	0.25	0.25	0.25
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Extension of effective green, e	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Arrival type, AT	3	3	3	3	3		3	3			3	
Unit extension, UE	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Filtering/metering, I	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	1	0	0	0	0	0	1	0	0
Lane width	12.0	12.5	11.0	12.0	11.5		13.0	13.5			15.0	
Parking / Grade / Parking	N	-5	N	N	0	N	N	0	N	N	2	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0	0	0	0		0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NB Only	SB Only	07	08
Timing	G = 34.0	G =	G =	G =	G = 11.0	G = 1.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 64.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	4	945	1	20	935		49	50			12	
Lane group capacity, c	268	1983	1250	257	1870		314	313			30	
v/c ratio, X	0.01	0.48	0.00	0.08	0.50		0.16	0.16			0.40	
Total green ratio, g/C	0.53	0.53	0.80	0.53	0.53		0.17	0.17			0.02	
Uniform delay, d_1	7.1	9.4	1.3	7.3	9.6		22.6	22.6			31.2	
Progression factor, PF	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Delay calibration, k	0.11	0.11	0.11	0.11	0.11		0.11	0.11			0.11	
Incremental delay, d_2	0.0	0.2	0.0	0.1	0.2		0.2	0.2			8.5	
Initial queue delay, d_3	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Back of Queue	0.0	6.1	0.0	0.2	6.1		0.8	0.8			0.3	
Queue Storage Ratio												
Control delay	7.1	9.6	1.3	7.5	9.8		22.8	22.8			39.7	
Lane group LOS	A	A	A	A	A		C	C			D	
Approach delay	9.6			9.7			22.8			39.7		
Approach LOS	A			A			C			D		
Intersection delay	10.5			X_C = 0.42			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / CHESTNUT FERRY
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	All other areas
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2010 ICFDTEXP
		Project ID	2010 DETOUR VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	1	1	2	0	1	1	0	0	1	0
Lane group	L	T	R	L	TR		L	LTR			LTR	
Volume, V (vph)	1	1228	1	39	1251	1	1	1	84	1	1	1
% Heavy vehicles, %HV	0		2	0	1	0	2	0	1	0	0	0
Peak-hour factor, PHF	0.25	0.94	0.94	0.83	0.82	0.25	0.84	0.25	0.72	0.25	0.25	0.25
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Extension of effective green, e	2.0	2.0	2.0	2.0	2.0		2.0	2.0			2.0	
Arrival type, AT	3	3	3	3	3		3	3			3	
Unit extension, UE	3.0	3.0	3.0	3.0	3.0		3.0	3.0			3.0	
Filtering/metering, I	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	1	0	0	0	0	0	1	0	0
Lane width	12.0	12.5	11.0	12.0	11.5		13.0	13.5			15.0	
Parking / Grade / Parking	N	-5	N	N	0	N	N	0	N	N	2	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0	0	0	0		0	0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NB Only	SB Only	07	08
Timing	G = 34.0	G =	G =	G =	G = 16.0	G = 1.0	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y = 6	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 69.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	4	1306	1	47	1530		1	121			12	
Lane group capacity, c	113	1839	1273	110	1735		424	392			28	
v/c ratio, X	0.04	0.71	0.00	0.43	0.88		0.00	0.31			0.43	
Total green ratio, g/C	0.49	0.49	0.81	0.49	0.49		0.23	0.23			0.01	
Uniform delay, d_1	9.0	13.7	1.2	11.2	15.7		20.4	21.9			33.7	
Progression factor, PF	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
I factor	1.000	1.000	1.000	1.000	1.000		1.000	1.000			1.000	
Delay calibration, k	0.11	0.27	0.11	0.11	0.41		0.11	0.11			0.11	
Incremental delay, d_2	0.1	1.3	0.0	2.7	5.7		0.0	0.5			10.2	
Initial queue delay, d_3	0.0	0.0	0.0	0.0	0.0		0.0	0.0			0.0	
Back of Queue	0.0	11.6	0.0	0.7	17.1		0.0	2.1			0.3	
Queue Storage Ratio												
Control delay	9.2	15.0	1.2	13.9	21.4		20.4	22.4			43.9	
Lane group LOS	A	B	A	B	C		C	C			D	
Approach delay	14.9			21.2			22.4			43.9		
Approach LOS	B			C			C			D		
Intersection delay	18.6			X_C = 0.69			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US 1 / CAMPBELL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT 1 CA EX EX A
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	27	590	17	24	665	22	21	24	12	11	20	40
% Heavy vehicles, %HV	1		0	3	1	4	0	2	0	0	1	2
Peak-hour factor, PHF	0.61	0.82	0.85	0.67	0.83	0.79	0.58	0.54	0.60	0.39	0.71	0.71
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width	11.5	10.5		12.0	11.0			16.0			11.5	
Parking / Grade / Parking	N	2	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 94.0	G =	G =	G =	G = 12.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 118.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	44	740		36	829			100			112	
Lane group capacity, c	439	2406		488	2467			145			135	
v/c ratio, X	0.10	0.31		0.07	0.34			0.69			0.83	
Total green ratio, g/C	0.80	0.80		0.80	0.80			0.10			0.10	
Uniform delay, d_1	2.7	3.2		2.6	3.3			51.2			52.0	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
I factor	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.11		0.11	0.11			0.26			0.37	
Incremental delay, d_2	0.1	0.1		0.1	0.1			13.0			33.3	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Back of Queue	0.4	3.8		0.3	4.4			3.7			4.5	
Queue Storage Ratio												
Control delay	2.8	3.3		2.7	3.4			64.2			85.2	
Lane group LOS	A	A		A	A			E			F	
Approach delay	3.3			3.4			64.2			85.2		
Approach LOS	A			A			E			F		
Intersection delay	11.5			X_C = 0.39			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US1 / CAMPBELL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT 1CADTEXA
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 DETOUR VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	27	841	25	15	742	22	129	24	12	11	12	48
% Heavy vehicles, %HV	1		0	3	1	4	0	2	0	0	1	2
Peak-hour factor, PHF	0.61	0.82	0.85	0.67	0.83	0.79	0.58	0.54	0.60	0.39	0.71	0.71
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width	11.5	10.5		12.0	11.0			16.0			11.5	
Parking / Grade / Parking	N	2	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 94.0	G =	G =	G =	G = 12.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 118.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	44	1055		22	922			286			113	
Lane group capacity, c	395	2406		342	2469			117			145	
v/c ratio, X	0.11	0.44		0.06	0.37			2.44			0.78	
Total green ratio, g/C	0.80	0.80		0.80	0.80			0.10			0.10	
Uniform delay, d_1	2.7	3.8		2.6	3.5			53.0			51.7	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
I factor	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.11		0.11	0.11			0.50			0.33	
Incremental delay, d_2	0.1	0.1		0.1	0.1			675.1			23.3	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Back of Queue	0.4	6.4		0.2	5.2			30.9			4.4	
Queue Storage Ratio												
Control delay	2.8	3.9		2.7	3.6			728.1			75.0	
Lane group LOS	A	A		A	A			F			E	
Approach delay	3.8			3.5			728.1			75.0		
Approach LOS	A			A			F			E		
Intersection delay	91.8			X_C = 0.67			Intersection LOS			F		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US1/CAMPBELL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT ICA OTCTA
Time Period	AM PEAK HOUR	Analysis Year	2010
		Project ID	2010 DETOUR VOLUMES; EXISTING GEOMETRY; CHANGE TIMING

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	27	841	25	15	742	22	129	24	12	11	12	48
% Heavy vehicles, %HV	1		0	3	1	4	0	2	0	0	1	2
Peak-hour factor, PHF	0.61	0.82	0.85	0.67	0.83	0.79	0.58	0.54	0.60	0.39	0.71	0.71
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width	11.5	10.5		12.0	11.0			16.0			11.5	
Parking / Grade / Parking	N	2	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 74.0	G =	G =	G =	G = 32.0	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 118.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	44	1055		22	922			286			113	
Lane group capacity, c	277	1894		231	1943			362			367	
v/c ratio, X	0.16	0.56		0.10	0.47			0.79			0.31	
Total green ratio, g/C	0.63	0.63		0.63	0.63			0.27			0.27	
Uniform delay, d_1	9.1	12.6		8.7	11.7			39.9			34.2	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
I factor	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.15		0.11	0.11			0.34			0.11	
Incremental delay, d_2	0.3	0.4		0.2	0.2			11.2			0.5	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Back of Queue	0.7	11.4		0.3	9.2			10.1			3.1	
Queue Storage Ratio												
Control delay	9.4	13.0		8.9	11.9			51.1			34.7	
Lane group LOS	A	B		A	B			D			C	
Approach delay	12.8			11.8			51.1			34.7		
Approach LOS	B			B			D			C		
Intersection delay	17.9			X_C = 0.63			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US1 / CAMPBELL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT ~~US1~~ CA EX EXP
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 VOLUMES; EXISTING GEOMETRY

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	65	832	45	16	732	24	64	24	15	14	30	74
% Heavy vehicles, %HV	1		0	3	1	4	0	2	0	0	1	2
Peak-hour factor, PHF	0.71	0.93	0.75	0.67	0.84	0.54	0.80	0.60	0.62	0.58	0.75	0.66
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width	11.5	10.5		12.0	11.0			16.0			11.5	
Parking / Grade / Parking	N	2	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 89.5	G =	G =	G =	G = 17.5	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 119.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	92	955		24	915			144			176	
Lane group capacity, c	367	2260		352	2323			149			208	
v/c ratio, X	0.25	0.42		0.07	0.39			0.97			0.85	
Total green ratio, g/C	0.75	0.75		0.75	0.75			0.15			0.15	
Uniform delay, d_1	4.5	5.4		3.9	5.2			50.5			49.4	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
I factor	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.11		0.11	0.11			0.47			0.38	
Incremental delay, d_2	0.4	0.1		0.1	0.1			63.4			26.2	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Back of Queue	1.1	6.7		0.2	6.2			6.6			7.0	
Queue Storage Ratio												
Control delay	4.9	5.5		3.9	5.3			113.9			75.7	
Lane group LOS	A	A		A	A			F			E	
Approach delay	5.4			5.3			113.9			75.7		
Approach LOS	A			A			F			E		
Intersection delay	17.5			X_C = 0.51			Intersection LOS			B		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US1 / CAMPBELL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 DETOUR VOLUMES; EXISTING GEOMETRY

ICADTEXP

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	65	1169	77	15	838	24	229	24	15	14	20	84
% Heavy vehicles, %HV	1		0	3	1	4	0	2	0	0	1	2
Peak-hour factor, PHF	0.71	0.93	0.75	0.67	0.84	0.54	0.80	0.60	0.62	0.58	0.75	0.66
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width	11.5	10.5		12.0	11.0			16.0			11.5	
Parking / Grade / Parking	N	2	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 89.5	G =	G =	G =	G = 17.5	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 119.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	92	1360		22	1042			350			178	
Lane group capacity, c	315	2256		213	2326			126			214	
v/c ratio, X	0.29	0.60		0.10	0.45			2.78			0.83	
Total green ratio, g/C	0.75	0.75		0.75	0.75			0.15			0.15	
Uniform delay, d_1	4.7	6.7		4.0	5.5			50.8			49.3	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
I factor	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.19		0.11	0.11			0.50			0.37	
Incremental delay, d_2	0.5	0.5		0.2	0.1			821.7			23.4	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Back of Queue	1.1	12.0		0.2	7.5			39.9			7.0	
Queue Storage Ratio												
Control delay	5.2	7.1		4.2	5.7			872.5			72.7	
Lane group LOS	A	A		A	A			F			E	
Approach delay	7.0			5.6			872.5			72.7		
Approach LOS	A			A			F			E		
Intersection delay	109.9			X_C = 0.96			Intersection LOS			F		

HCS+™ DETAILED REPORT

General Information		Site Information	
Analyst	GGS	Intersection	US1 / CAMPBELL
Agency or Co.	SPRAGUE & SPRAGUE	Area Type	CBD or Similar
Date Performed	3/4/2011	Jurisdiction	SCDOT / CADT CTP
Time Period	PM PEAK HOUR	Analysis Year	2010
		Project ID	2010 DETOUR VOLUMES; EXISTING GEOMETRY; CHANGE TIMING

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	1	2	0	1	2	0	0	1	0	0	1	0
Lane group	L	TR		L	TR			LTR			LTR	
Volume, V (vph)	65	1169	77	15	838	24	229	24	15	14	20	84
% Heavy vehicles, %HV	1		0	3	1	4	0	2	0	0	1	2
Peak-hour factor, PHF	0.71	0.93	0.75	0.67	0.84	0.54	0.80	0.60	0.62	0.58	0.75	0.66
Pretimed (P) or actuated (A)	A	A	A	A	A	A	A	A	A	A	A	A
Start-up lost time, l_1	2.0	2.0		2.0	2.0			2.0			2.0	
Extension of effective green, e	2.0	2.0		2.0	2.0			2.0			2.0	
Arrival type, AT	3	3		3	3			3			3	
Unit extension, UE	3.0	3.0		3.0	3.0			3.0			3.0	
Filtering/metering, I	1.000	1.000		1.000	1.000			1.000			1.000	
Initial unmet demand, Q_b	0.0	0.0		0.0	0.0			0.0			0.0	
Ped / Bike / RTOR volumes	1	0	0	0	0	0	0	0	0	0	0	0
Lane width	11.5	10.5		12.0	11.0			16.0			11.5	
Parking / Grade / Parking	N	2	N	N	0	N	N	0	N	N	0	N
Parking maneuvers, N_m												
Buses stopping, N_B	0	0		0	0			0			0	
Min. time for pedestrians, G_p	3.2			3.2			3.2			3.2		

Phasing	EW Perm	02	03	04	NS Perm	06	07	08
Timing	G = 65.5	G =	G =	G =	G = 41.5	G =	G =	G =
	Y = 6	Y =	Y =	Y =	Y = 6	Y =	Y =	Y =
Duration of Analysis, T =						Cycle Length, C = 119.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v	92	1360		22	1042			350			178	
Lane group capacity, c	184	1651		101	1702			412			482	
v/c ratio, X	0.50	0.82		0.22	0.61			0.85			0.37	
Total green ratio, g/C	0.55	0.55		0.55	0.55			0.35			0.35	
Uniform delay, d_1	16.6	22.0		13.7	18.1			35.9			29.0	
Progression factor, PF	1.000	1.000		1.000	1.000			1.000			1.000	
I factor	1.000	1.000		1.000	1.000			1.000			1.000	
Delay calibration, k	0.11	0.36		0.11	0.20			0.38			0.11	
Incremental delay, d_2	2.1	3.5		1.1	0.7			15.4			0.5	
Initial queue delay, d_3	0.0	0.0		0.0	0.0			0.0			0.0	
Back of Queue	2.2	22.4		0.4	13.4			12.8			4.7	
Queue Storage Ratio												
Control delay	18.7	25.5		14.8	18.8			51.2			29.4	
Lane group LOS	B	C		B	B			D			C	
Approach delay	25.1			18.7			51.2			29.4		
Approach LOS	C			B			D			C		
Intersection delay	26.1			X_C = 0.83			Intersection LOS			C		

TWO-WAY STOP CONTROL SUMMARY

SERDT EXA

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	AM PEAK HOUR		

Project Description: 2010 DETOUR VOLUMES AND GEOMETRY

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	72	526			713	3
Peak-Hour Factor, PHF	0.74	0.86	0.25	0.25	0.86	0.75
Hourly Flow Rate, HFR (veh/h)	97	611	0	0	829	4
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	1	47			
Peak-Hour Factor, PHF	0.50	0.25	0.92	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	8	4	51	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LTR	
v (veh/h)	97						63	
C (m) (veh/h)	781						336	
v/c	0.12						0.19	
95% queue length	0.42						0.68	
Control Delay (s/veh)	10.3						18.2	
LOS	B						C	
Approach Delay (s/veh)	--	--				18.2		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY SERDTEXP

General Information		Site Information	
Analyst	GGS	Intersection	US 521/EHRENCLOU ROAD
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/4/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description: 2010 DETOUR VOLUMES AND GEOMETRY

East/West Street: EHRENCLOU ROAD | North/South Street: US 521

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	10	703			679	3
Peak-Hour Factor, PHF	0.82	0.85	0.25	0.25	0.89	0.38
Hourly Flow Rate, HFR (veh/h)	12	827	0	0	762	7
Percent Heavy Vehicles	4	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	1	2	0	0	2	0
Configuration	L	T			T	TR
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	5	1	42			
Peak-Hour Factor, PHF	0.25	0.25	0.87	0.50	0.58	0.25
Hourly Flow Rate, HFR (veh/h)	20	4	48	0	0	0
Percent Heavy Vehicles	0	0	3	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	L						LTR	
v (veh/h)	12						72	
C (m) (veh/h)	828						320	
v/c	0.01						0.22	
95% queue length	0.04						0.85	
Control Delay (s/veh)	9.4						19.5	
LOS	A						C	
Approach Delay (s/veh)	--	--				19.5		
Approach LOS	--	--				C		

TWO-WAY STOP CONTROL SUMMARY

YCEXEXA

General Information		Site Information	
Analyst	GGS	Intersection	YORK/CAMPBELL
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/5/2011	Analysis Year	2010
Analysis Time Period	AM PEAK HOUR		

Project Description: 2010 VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: CAMPBELL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	32	197	21	4	215	11
Peak-Hour Factor, PHF	0.47	0.76	0.75	0.50	0.72	0.55
Hourly Flow Rate, HFR (veh/h)	68	259	28	8	298	19
Percent Heavy Vehicles	3	--	--	7	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	22	8	2	9	14	37
Peak-Hour Factor, PHF	0.69	0.50	0.50	0.56	0.70	0.54
Hourly Flow Rate, HFR (veh/h)	31	16	4	16	20	68
Percent Heavy Vehicles	1	3	0	0	8	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	68	8		51			104	
C (m) (veh/h)	1235	1245		288			492	
v/c	0.06	0.01		0.18			0.21	
95% queue length	0.17	0.02		0.63			0.79	
Control Delay (s/veh)	8.1	7.9		20.2			14.3	
LOS	A	A		C			B	
Approach Delay (s/veh)	--	--	20.2			14.3		
Approach LOS	--	--	C			B		

TWO-WAY STOP CONTROL SUMMARY

YCDTEXA

General Information

Analyst	GGS
Agency/Co.	SPRAGUE & SPRAGUE
Date Performed	3/5/2011
Analysis Time Period	AM PEAK HOUR

Site Information

Intersection	YORK/CAMPBELL
Jurisdiction	SCDOT
Analysis Year	2010

Project Description: 2010 DETOUR VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: CAMPBELL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	14	85	9	16	117	127
Peak-Hour Factor, PHF	0.47	0.76	0.75	0.50	0.72	0.55
Hourly Flow Rate, HFR (veh/h)	29	111	12	32	162	230
Percent Heavy Vehicles	3	--	--	7	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	12	18	2	17	14	20
Peak-Hour Factor, PHF	0.69	0.50	0.50	0.56	0.70	0.54
Hourly Flow Rate, HFR (veh/h)	17	36	4	30	20	37
Percent Heavy Vehicles	1	3	0	0	8	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	29	32		57			87	
C (m) (veh/h)	1159	1431		396			510	
v/c	0.03	0.02		0.14			0.17	
95% queue length	0.08	0.07		0.50			0.61	
Control Delay (s/veh)	8.2	7.6		15.6			13.5	
LOS	A	A		C			B	
Approach Delay (s/veh)	--	--	15.6			13.5		
Approach LOS	--	--	C			B		

TWO-WAY STOP CONTROL SUMMARY YCEXEXP

General Information		Site Information	
Analyst	GGS	Intersection	YORK/CAMPBELL
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/5/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description: 2010 VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: CAMPBELL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	16	188	23	6	134	11
Peak-Hour Factor, PHF	0.44	0.75	0.82	0.50	0.88	0.69
Hourly Flow Rate, HFR (veh/h)	36	250	28	12	152	15
Percent Heavy Vehicles	3	--	--	7	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	32	9	3	25	17	17
Peak-Hour Factor, PHF	0.73	0.56	0.38	0.89	0.47	0.61
Hourly Flow Rate, HFR (veh/h)	43	16	7	28	36	27
Percent Heavy Vehicles	1	3	0	0	8	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	36	12		66			91	
C (m) (veh/h)	1405	1257		425			505	
v/c	0.03	0.01		0.16			0.18	
95% queue length	0.08	0.03		0.54			0.65	
Control Delay (s/veh)	7.6	7.9		15.0			13.7	
LOS	A	A		C			B	
Approach Delay (s/veh)	--	--	15.0			13.7		
Approach LOS	--	--	C			B		

TWO-WAY STOP CONTROL SUMMARY

YCDTEXP

General Information		Site Information	
Analyst	GGS	Intersection	YORK/CAMPBELL
Agency/Co.	SPRAGUE & SPRAGUE	Jurisdiction	SCDOT
Date Performed	3/5/2011	Analysis Year	2010
Analysis Time Period	PM PEAK HOUR		

Project Description: 2010 DETOUR VOLUMES; EXISTING GEOMETRY

East/West Street: YORK STREET | North/South Street: CAMPBELL STREET

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	30	50	6	6	22	123
Peak-Hour Factor, PHF	0.44	0.75	0.82	0.50	0.88	0.69
Hourly Flow Rate, HFR (veh/h)	68	66	7	12	25	178
Percent Heavy Vehicles	3	--	--	7	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	5	36	3	25	34	6
Peak-Hour Factor, PHF	0.73	0.56	0.38	0.89	0.47	0.61
Hourly Flow Rate, HFR (veh/h)	6	64	7	28	72	9
Percent Heavy Vehicles	1	3	0	0	8	4
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	68	12		77			109	
C (m) (veh/h)	1363	1496		507			541	
v/c	0.05	0.01		0.15			0.20	
95% queue length	0.16	0.02		0.53			0.75	
Control Delay (s/veh)	7.8	7.4		13.4			13.3	
LOS	A	A		B			B	
Approach Delay (s/veh)	--	--	13.4			13.3		
Approach LOS	--	--	B			B		

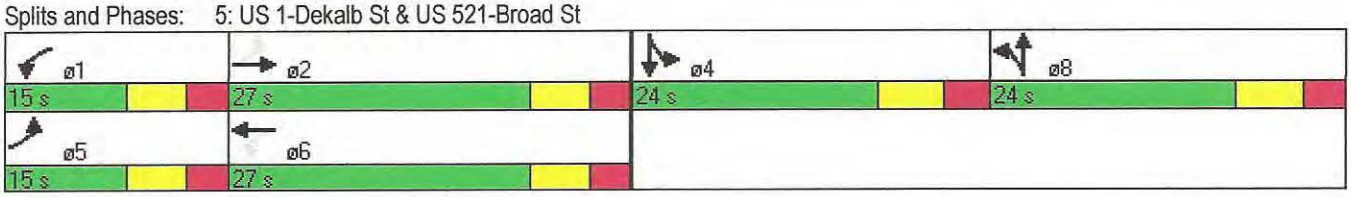
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	21	124	630	92	43	137	79	47	164	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.994			0.981			0.954			0.975	
Flt Protected	0.950			0.950				0.992			0.991	
Satd. Flow (prot)	1624	3038	0	1593	2972	0	0	2864	0	0	3093	0
Flt Permitted	0.260			0.327				0.992			0.991	
Satd. Flow (perm)	445	3038	0	548	2972	0	0	2864	0	0	3093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			17			67			22	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	68	539	22	132	670	98	46	146	84	50	174	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	561	0	132	768	0	0	276	0	0	268	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		16.5	16.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	35.5	28.1		39.6	32.0			12.0			12.5	
Actuated g/C Ratio	0.39	0.31		0.44	0.36			0.13			0.14	
v/c Ratio	0.25	0.59		0.38	0.72			0.63			0.60	
Control Delay	17.5	31.2		18.5	32.9			27.8			38.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	17.5	31.2		18.5	32.9			27.8			38.7	
LOS	B	C		B	C			C			D	
Approach Delay		29.7			30.8			27.8			38.7	
Approach LOS		C			C			C			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 31.1 Intersection LOS: C
Intersection Capacity Utilization 66.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



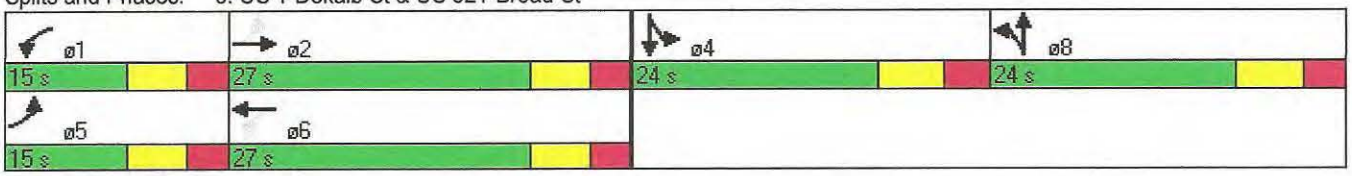
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	507	272	183	571	92	170	137	79	47	164	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.948			0.979			0.969			0.975	
Flt Protected	0.950			0.950				0.978			0.991	
Satd. Flow (prot)	1624	2897	0	1593	2967	0	0	2868	0	0	3093	0
Flt Permitted	0.297			0.147				0.978			0.991	
Satd. Flow (perm)	508	2897	0	246	2967	0	0	2868	0	0	3093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		101			19			31			22	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	68	539	289	195	607	98	181	146	84	50	174	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	828	0	195	705	0	0	411	0	0	268	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	15.0	27.0	0.0	15.0	27.0	0.0	24.0	24.0	0.0	24.0	24.0	0.0
Total Split (%)	16.7%	30.0%	0.0%	16.7%	30.0%	0.0%	26.7%	26.7%	0.0%	26.7%	26.7%	0.0%
Maximum Green (s)	8.2	20.2		8.2	20.2		16.5	16.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	30.5	23.1		37.3	28.8			15.3			12.5	
Actuated g/C Ratio	0.34	0.26		0.41	0.32			0.17			0.14	
v/c Ratio	0.26	1.01		0.75	0.73			0.80			0.60	
Control Delay	19.4	66.4		41.7	35.7			41.7			38.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	19.4	66.4		41.7	35.7			41.7			38.7	
LOS	B	E		D	D			D			D	
Approach Delay		62.9			37.0			41.7			38.7	
Approach LOS		E			D			D			D	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 47.3 Intersection LOS: D
Intersection Capacity Utilization 80.9% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	827	57	134	672	105	74	276	133	115	211	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.990			0.980			0.959			0.974	
Flt Protected	0.950			0.950				0.992			0.986	
Satd. Flow (prot)	1624	3025	0	1593	2969	0	0	2879	0	0	3078	0
Flt Permitted	0.220			0.103				0.992			0.986	
Satd. Flow (perm)	376	3025	0	173	2969	0	0	2879	0	0	3078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			17			39			18	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	81	919	63	149	747	117	82	307	148	128	234	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	982	0	149	864	0	0	537	0	0	438	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	22.5%	22.5%	0.0%	22.5%	22.5%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.1	41.1		56.1	47.2			20.8			18.9	
Actuated g/C Ratio	0.40	0.34		0.47	0.39			0.17			0.16	
v/c Ratio	0.36	0.94		0.73	0.73			1.01			0.88	
Control Delay	21.7	55.7		42.5	35.5			91.3			66.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	21.7	55.7		42.5	35.5			91.3			66.5	
LOS	C	E		D	D			F			E	
Approach Delay		53.1			36.5			91.3			66.5	
Approach LOS		D			D			F			E	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 95
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 56.2 Intersection LOS: E
Intersection Capacity Utilization 87.7% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	1164	57	207	599	105	252	276	133	115	211	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.993			0.978			0.970			0.974	
Flt Protected	0.950			0.950				0.981			0.986	
Satd. Flow (prot)	1624	3035	0	1593	2964	0	0	2879	0	0	3078	0
Flt Permitted	0.273			0.086				0.981			0.986	
Satd. Flow (perm)	467	3035	0	144	2964	0	0	2879	0	0	3078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			19			22			18	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	81	1293	63	230	666	117	280	307	148	128	234	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	1356	0	230	783	0	0	735	0	0	438	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	27.0	27.0	0.0	27.0	27.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	22.5%	22.5%	0.0%	22.5%	22.5%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		19.5	19.5		19.5	19.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.2	41.2		57.0	48.0			20.1			18.9	
Actuated g/C Ratio	0.40	0.34		0.48	0.40			0.17			0.16	
v/c Ratio	0.32	1.30		1.13	0.65			1.47			0.88	
Control Delay	20.3	175.0		132.9	32.5			258.9			66.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	20.3	175.0		132.9	32.5			258.9			66.5	
LOS	C	F		F	C			F			E	
Approach Delay		166.3			55.3			258.9			66.5	
Approach LOS		F			E			F			E	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.47
Intersection Signal Delay: 142.0 Intersection LOS: F
Intersection Capacity Utilization 108.3% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St

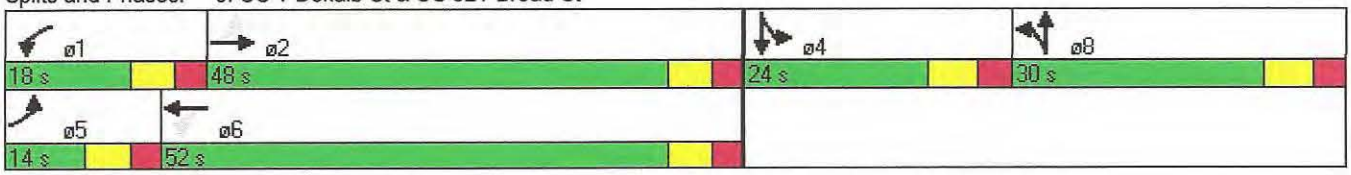
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	1164	57	207	599	105	252	276	133	115	211	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.993			0.978			0.970			0.974	
Flt Protected	0.950			0.950				0.981			0.986	
Satd. Flow (prot)	1624	3035	0	1593	2964	0	0	2879	0	0	3078	0
Flt Permitted	0.273			0.086				0.981			0.986	
Satd. Flow (perm)	467	3035	0	144	2964	0	0	2879	0	0	3078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			19			23			17	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		1237			1248			641			1907	
Travel Time (s)		28.1			28.4			17.5			52.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	1%	2%	2%	2%	1%	2%	0%
Parking (#/hr)		0	0		0	0		0	0			
Adj. Flow (vph)	81	1293	63	230	666	117	280	307	148	128	234	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	1356	0	230	783	0	0	735	0	0	438	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.22	1.14	1.14	1.14	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	pm+pt			pm+pt			Split			Split		
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								
Detector Phase	5	2		1	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	10.8	22.8		10.8	22.8		24.0	24.0		24.0	24.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	14.0	48.0	0.0	18.0	52.0	0.0	30.0	30.0	0.0	24.0	24.0	0.0
Total Split (%)	11.7%	40.0%	0.0%	15.0%	43.3%	0.0%	25.0%	25.0%	0.0%	20.0%	20.0%	0.0%
Maximum Green (s)	7.2	41.2		11.2	45.2		22.5	22.5		16.5	16.5	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.5	4.5		4.5	4.5	
All-Red Time (s)	2.8	2.8		2.8	2.8		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-3.0	0.0	0.0	-3.0	0.0	0.0
Total Lost Time (s)	6.8	6.8	4.0	6.8	6.8	4.0	4.5	7.5	4.0	4.5	7.5	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	48.2	41.2		57.0	48.0			22.5			16.5	
Actuated g/C Ratio	0.40	0.34		0.48	0.40			0.19			0.14	
v/c Ratio	0.32	1.30		1.13	0.65			1.31			1.00	
Control Delay	20.3	175.0		132.9	32.5			193.8			93.0	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	20.3	175.0		132.9	32.5			193.8			93.0	
LOS	C	F		F	C			F			F	
Approach Delay		166.3			55.3			193.8			93.0	
Approach LOS		F			E			F			F	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of 1st Green, Master Intersection
Natural Cycle: 115
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay: 132.0 Intersection LOS: F
Intersection Capacity Utilization 108.3% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 5: US 1-Dekalb St & US 521-Broad St



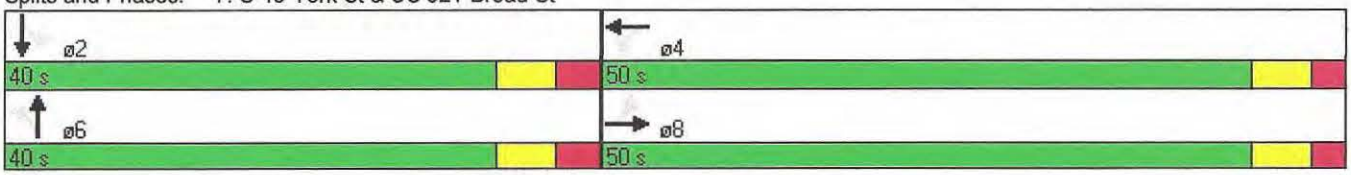
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	165	26	66	202	8	27	239	107	8	308	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.980			0.994			0.957			0.990	
Flt Protected	0.950			0.950				0.996			0.999	
Satd. Flow (prot)	1624	1671	0	1450	1622	0	0	2976	0	0	2970	0
Flt Permitted	0.459			0.505				0.904			0.944	
Satd. Flow (perm)	785	1671	0	771	1622	0	0	2701	0	0	2806	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			3			75			9	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	13	192	30	77	235	9	31	278	124	9	358	27
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	222	0	77	244	0	0	433	0	0	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	50.0	50.0	0.0	50.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	43.6	43.6		43.6	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.2	19.2		19.2	19.2			57.4			57.4	
Actuated g/C Ratio	0.21	0.21		0.21	0.21			0.64			0.64	
v/c Ratio	0.08	0.60		0.47	0.70			0.25			0.22	
Control Delay	26.1	36.3		38.7	42.4			6.9			8.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	26.1	36.3		38.7	42.4			6.9			8.5	
LOS	C	D		D	D			A			A	
Approach Delay		35.7			41.5			6.9			8.5	
Approach LOS		D			D			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 20.3 Intersection LOS: C
Intersection Capacity Utilization 60.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



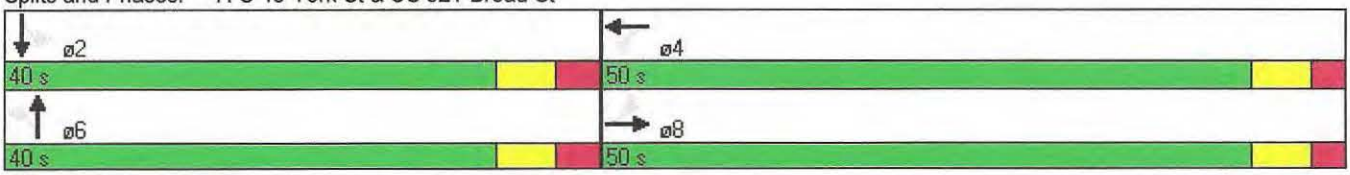
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	53	26	66	202	8	27	366	107	122	491	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.951			0.994			0.968			0.992	
Flt Protected	0.950			0.950				0.997			0.991	
Satd. Flow (prot)	1624	1616	0	1450	1622	0	0	3021	0	0	2965	0
Flt Permitted	0.459			0.697				0.884			0.714	
Satd. Flow (perm)	785	1616	0	1064	1622	0	0	2678	0	0	2137	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			3			43			7	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	13	62	30	77	235	9	31	426	124	142	571	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	92	0	77	244	0	0	581	0	0	755	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	50.0	50.0	0.0	50.0	50.0	0.0	40.0	40.0	0.0	40.0	40.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	0.0%	44.4%	44.4%	0.0%
Maximum Green (s)	43.6	43.6		43.6	43.6		33.0	33.0		33.0	33.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	19.2	19.2		19.2	19.2			57.4			57.4	
Actuated g/C Ratio	0.21	0.21		0.21	0.21			0.64			0.64	
v/c Ratio	0.08	0.25		0.34	0.70			0.34			0.55	
Control Delay	26.1	20.5		32.2	42.4			8.4			15.4	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	26.1	20.5		32.2	42.4			8.4			15.4	
LOS	C	C		C	D			A			B	
Approach Delay		21.2			39.9			8.4			15.4	
Approach LOS		C			D			A			B	

Intersection Summary

Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 22 (24%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 65.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



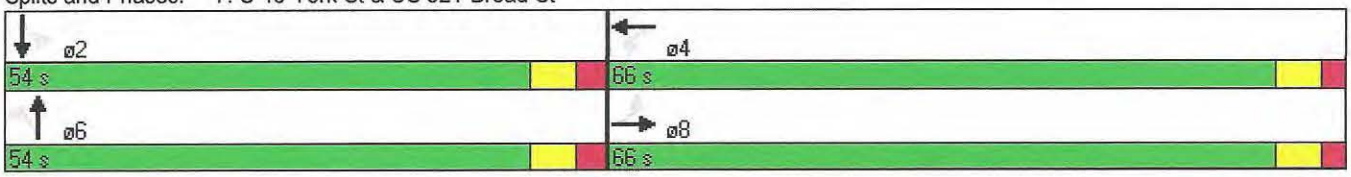
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	173	36	126	134	14	31	306	115	15	296	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.974			0.986			0.962			0.984	
Flt Protected	0.950			0.950				0.997			0.998	
Satd. Flow (prot)	1624	1660	0	1450	1613	0	0	2998	0	0	2953	0
Flt Permitted	0.575			0.428				0.900			0.925	
Satd. Flow (perm)	983	1660	0	653	1613	0	0	2706	0	0	2737	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			6			46			13	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	18	190	40	138	147	15	34	336	126	16	325	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	230	0	138	162	0	0	496	0	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	66.0	66.0	0.0	66.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	59.6	59.6		59.6	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	24.8	24.8		24.8	24.8			81.8			81.8	
Actuated g/C Ratio	0.21	0.21		0.21	0.21			0.68			0.68	
v/c Ratio	0.09	0.65		1.02	0.48			0.27			0.20	
Control Delay	34.8	48.4		128.7	43.1			8.2			8.1	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	34.8	48.4		128.7	43.1			8.2			8.1	
LOS	C	D		F	D			A			A	
Approach Delay		47.4			82.5			8.2			8.1	
Approach LOS		D			F			A			A	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.02
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 68.0% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



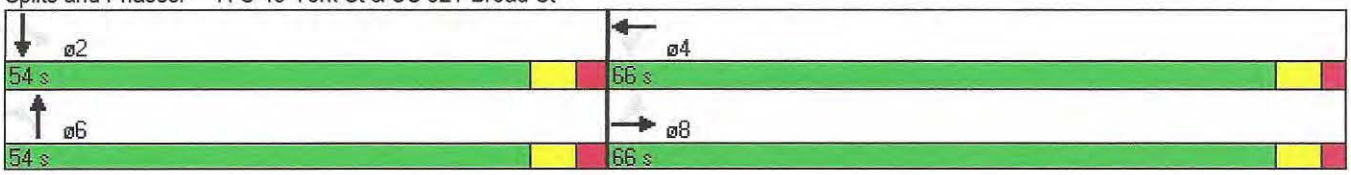
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	35	36	126	134	14	31	484	115	185	538	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.923			0.986			0.973			0.992	
Flt Protected	0.950			0.950				0.998			0.988	
Satd. Flow (prot)	1624	1562	0	1450	1613	0	0	3043	0	0	2961	0
Flt Permitted	0.552			0.706				0.870			0.642	
Satd. Flow (perm)	944	1562	0	1078	1613	0	0	2653	0	0	1924	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			6			26			5	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		545			793			743			1272	
Travel Time (s)		12.4			18.0			20.3			34.7	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	0%	0%	2%	12%	5%	0%	2%	3%	7%	0%	3%	1%
Parking (#/hr)											0	0
Adj. Flow (vph)	18	38	40	138	147	15	34	532	126	203	591	42
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	78	0	138	162	0	0	692	0	0	836	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.22	1.14
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	1		1	1		1	1		1	1	
Detector Template												
Leading Detector (ft)	50	50		50	50		50	50		50	50	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	50	50		50	50		50	50		50	50	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		8			4			6			2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		6	6		2	2	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	22.4	22.4		22.4	22.4		23.0	23.0		23.0	23.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)	66.0	66.0	0.0	66.0	66.0	0.0	54.0	54.0	0.0	54.0	54.0	0.0
Total Split (%)	55.0%	55.0%	0.0%	55.0%	55.0%	0.0%	45.0%	45.0%	0.0%	45.0%	45.0%	0.0%
Maximum Green (s)	59.6	59.6		59.6	59.6		47.0	47.0		47.0	47.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.4	2.4		2.4	2.4		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	-2.0	0.0	0.0	-2.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	4.0	6.4	6.4	4.0	5.0	7.0	4.0	5.0	7.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Min	C-Min		C-Min	C-Min	
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	21.4	21.4		21.4	21.4			85.2			85.2	
Actuated g/C Ratio	0.18	0.18		0.18	0.18			0.71			0.71	
v/c Ratio	0.11	0.25		0.72	0.55			0.37			0.61	
Control Delay	38.8	22.7		65.6	49.0			8.0			11.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	38.8	22.7		65.6	49.0			8.0			11.7	
LOS	D	C		E	D			A			B	
Approach Delay		25.7			56.7			8.0			11.7	
Approach LOS		C			E			A			B	

Intersection Summary

Area Type: CBD
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of 1st Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 18.1 Intersection LOS: B
Intersection Capacity Utilization 75.6% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: S-45-York St & US 521-Broad St



Appendix E

SIGNAL WARRANT INFORMATION
(Source: 2003 Manual on Uniform Traffic Control Devices)

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1.....	1.....	500	400	350	280	150	120	105	84
2 or more...	1.....	600	480	420	336	150	120	105	84
2 or more...	2 or more...	600	480	420	336	200	160	140	112
1.....	2 or more....	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic									
Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1.....	1.....	750	600	525	420	75	60	53	42
2 or more...	1.....	900	720	630	504	75	60	53	42
2 or more...	2 or more...	900	720	630	504	100	80	70	56
1.....	2 or more....	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume.
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures.
[c] May be used when the major-street speed exceeds 70 km/h or exceeds 40 mph or in an isolated community with a population of less than 10,000.
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 70 km/h or exceeds 40 mph or in an isolated community with a population of less than 10,000.

Standard:

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:

A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

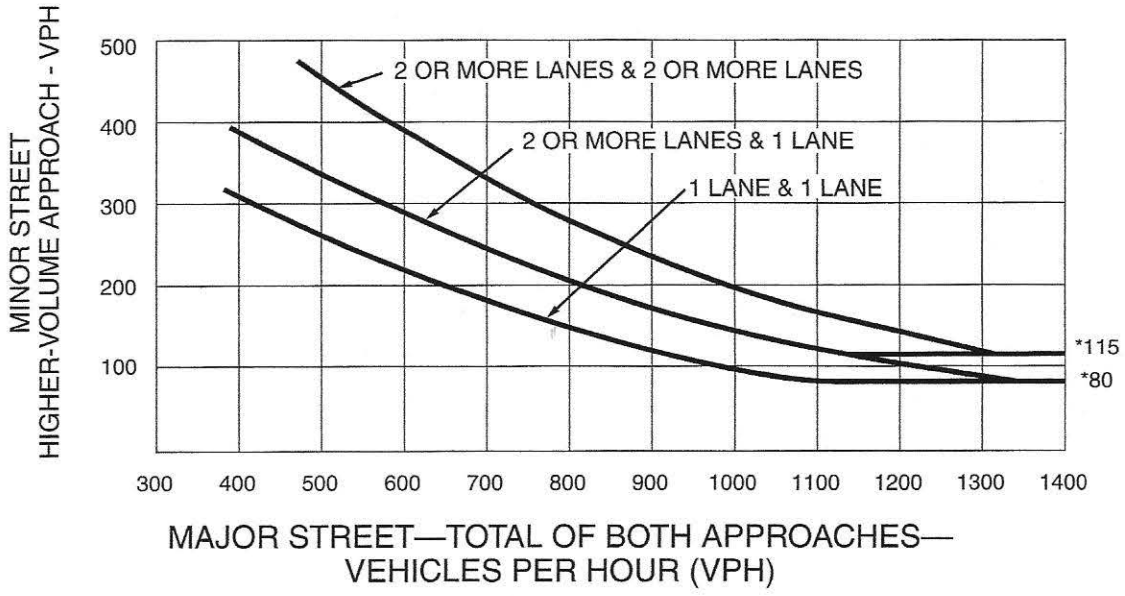
B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 70 km/h or exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

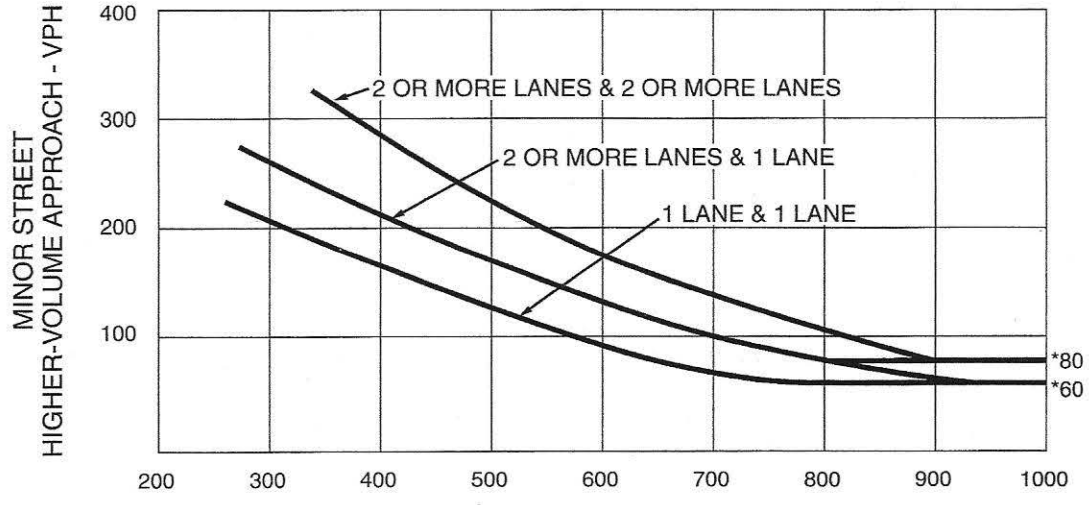
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

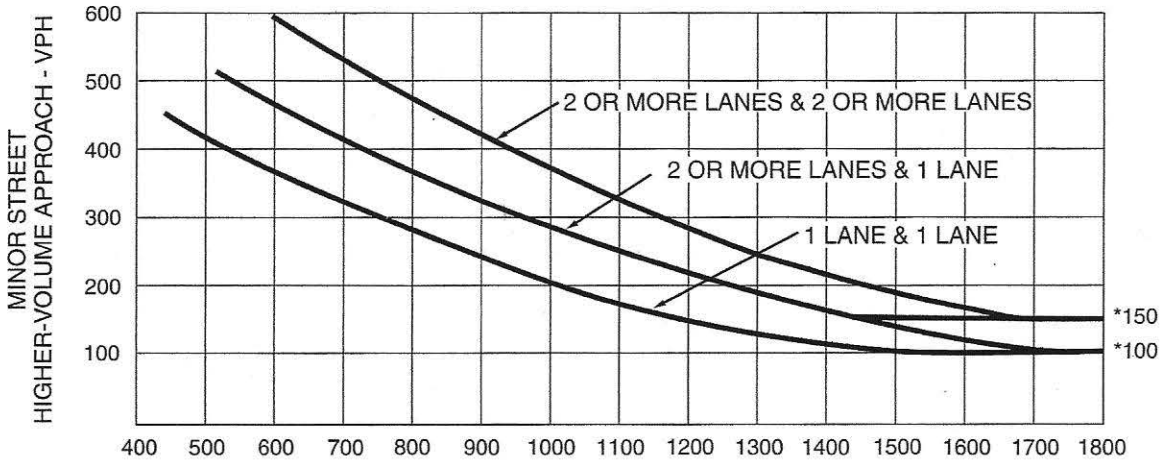
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

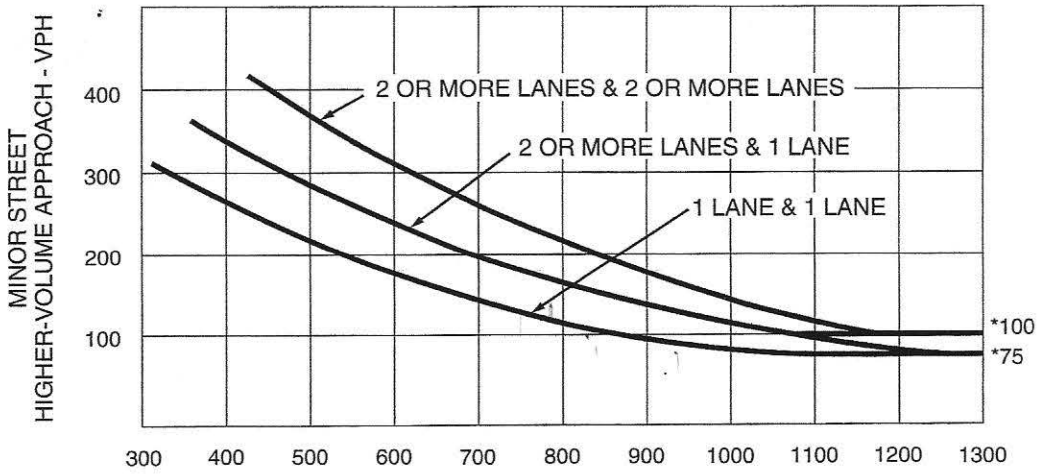
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

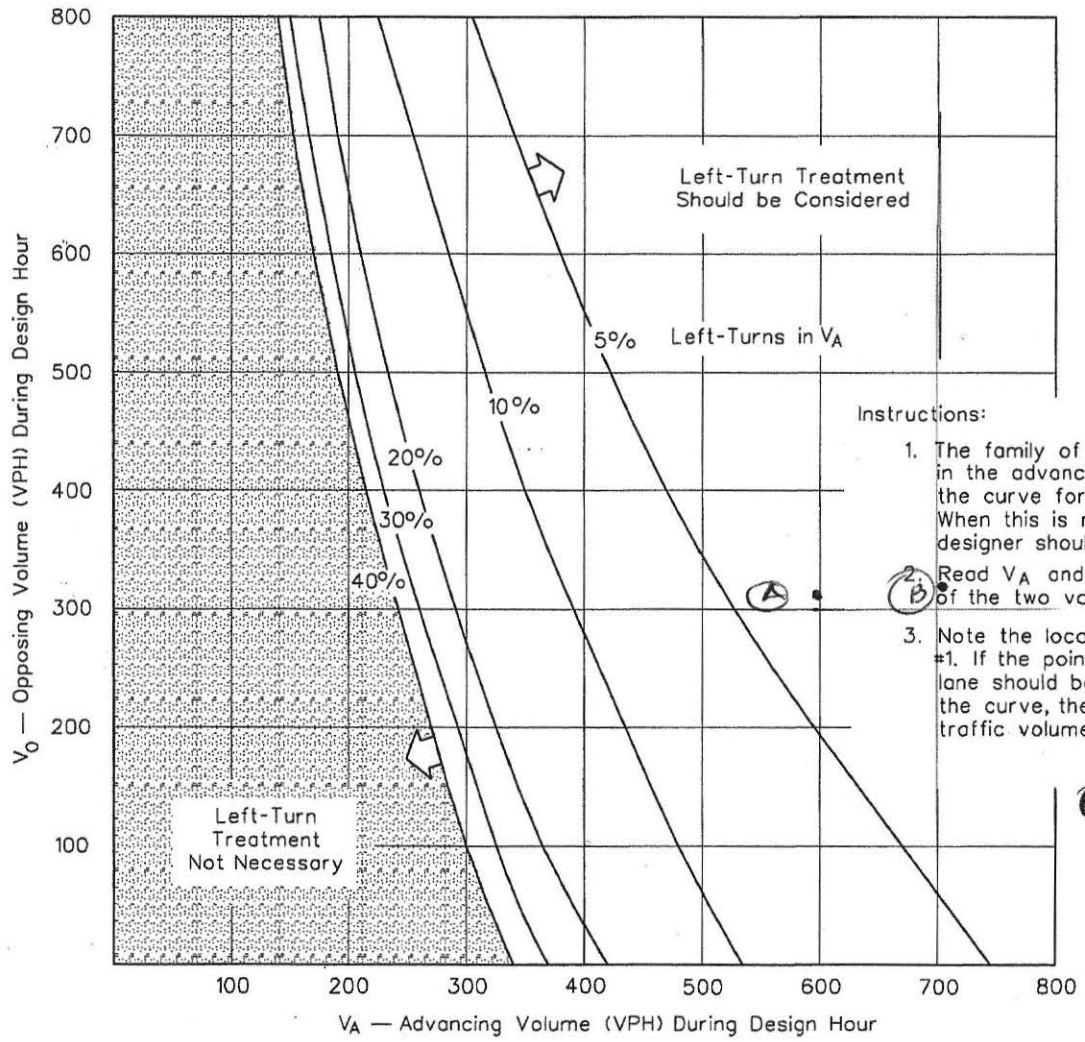
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 70 km/h OR ABOVE 40 mph ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Appendix F

LEFT TURN LANE GUIDELINE GRAPH
(Source: SCDOT Highway Design Manual, 2003)



(A) 2035 - recycling center $V_L = 12$
$V_O = 309$ $V_A = 598$ % L = 2%
should be considered

V_A = Total advancing traffic volume which includes all turning traffic

V_O = Total opposing traffic volume which includes all turning traffic

Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of five, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the curve in #1. If the point is to the right of the curve, then a left-turn lane should be considered. If the point is to the left of the curve, then a left-turn lane is not warranted based on traffic volumes.

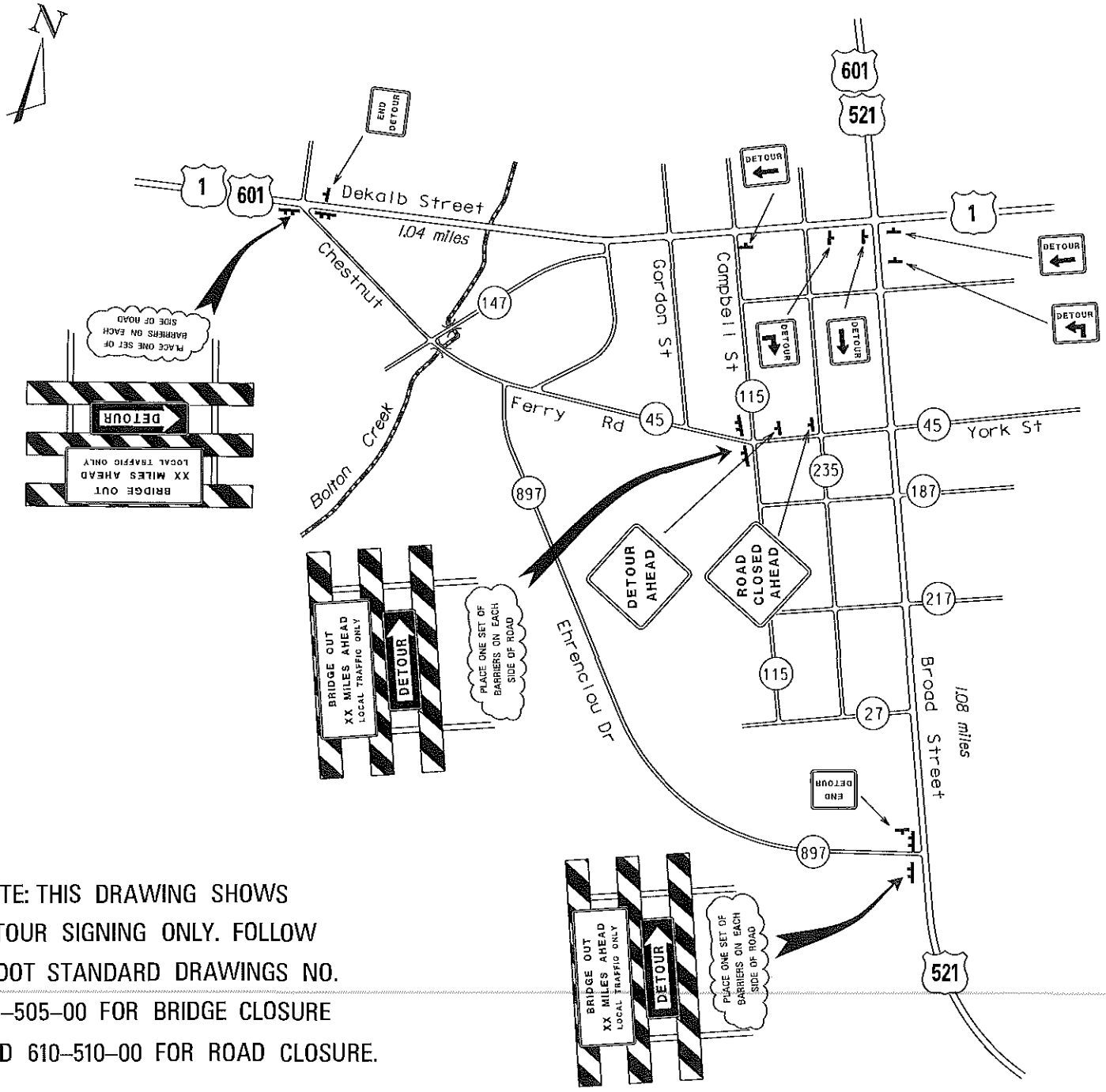
(B) Sunnyhill Drive $V_L = 47$
$V_O = 321$ $V_A = 701$ % L = 7%
should be considered.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (45 MPH)

Figure 15.5F

Appendix G

DETOUR ROUTE FOR CHESTNUT FERRY BRIDGE CONSTRUCTION

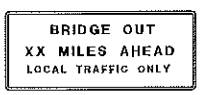


NOTE: THIS DRAWING SHOWS DETOUR SIGNING ONLY. FOLLOW SCDOT STANDARD DRAWINGS NO. 610-505-00 FOR BRIDGE CLOSURE AND 610-510-00 FOR ROAD CLOSURE.

TYPE III BARRICADE

W20-3-48-A

W20-2-48-A



R11-3B-60-XX

M4-9R-30
M4-9L-30

M4-9.1R-30
M4-9.1L-30

M4-8a-24

M4-10R-48
M4-10L-48

DATE	REVISIONS

SCDOT SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION DISTRICT #1 TRAFFIC ENGINEERING COLUMBIA, S.C.

DETOUR PLAN

CHESTNUT FERRY ROAD (Road S-45) at BOLTON CREEK

CITY	CAMDEN	COUNTY	KERSHAW
DESIGNED		APPROVED BY	APPROVED BY
DRAWN	HBR		
CHECKED		DRISTRICT TRAFFIC ENGINEER	ENGINEER
REVIEWED		DATE	SHEET NO. / FILE NO.
RECOMMENDED		11/16/10	

S-45 Chestnut Ferry @ Bolton Creek.dgn